


12-1-1997

Feasibility and Implementation Planning For The Centennial of Powered Flight

Harrison Price Company

 Part of the [Tourism and Travel Commons](#)

Find similar works at: <https://stars.library.ucf.edu/buzzprice>

University of Central Florida Libraries <http://library.ucf.edu>

This Report is brought to you for free and open access by the Digital Collections at STARS. It has been accepted for inclusion in Harrison "Buzz" Price Papers by an authorized administrator of STARS. For more information, please contact STARS@ucf.edu.

Recommended Citation

Harrison Price Company, "Feasibility and Implementation Planning For The Centennial of Powered Flight" (1997). *Harrison "Buzz" Price Papers*. 17.
<https://stars.library.ucf.edu/buzzprice/17>

**FEASIBILITY AND IMPLEMENTATION PLANNING
FOR THE CENTENNIAL OF POWERED FLIGHT**

Prepared for

THE 2003 COMMITTEE
November 1997

Prepared by

HARRISON PRICE COMPANY

*2141 Paseo Del Mar • San Pedro, California 90732
Phone (310) 521-1300 • FAX (310) 521-1305 • E-Mail
HARPRICO@aol.com*

In Association With

MCM GROUP INTERNATIONAL

**12555 West Jefferson Blvd., West Tower Suite 260
Los Angeles, California 90066
Phone (310) 301-7674 • FAX (310) 301-7622**

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1 INTRODUCTION	1-1
The 2003 Committee.....	1-3
The History and Role of the National Historic Park Sites.....	1-5
Existing Venue Inventory.....	1-7
Study Scope and Methodology	1-7
General Limiting Condition	1-11
2 PROGRAMMATIC CONCEPTS.....	2-1
Task Force Programs.....	2-1
Programs at U.S. Air Force Museum.....	2-1
U.S. Air and Trade Show Programs.....	2-2
Carillon Historical Park Programs	2-2
Dayton Aviation Heritage National Park Programs.....	2-3
Dayton Art Institute Programs.....	2-3
Arts and Cultural Events Programs	2-3
Sports Programs.....	2-4
Educational Programs	2-4
Pinnacle Events	2-4
May 2003.....	2-5
July 2003.....	2-6
September/October Period	2-8
December 15, 2002.....	2-8
December 17, 2003.....	2-9
Year-Long Centennial Activities	2-9
Centennial Exposition Programmatic Content.....	2-10
Presentation Issues.....	2-11
Summary.....	2-13
3 MARKET ENVIRONMENT.....	3-1
Regional Orientation	3-1
Regional Resident Market.....	3-4
Overnight Tourism Market.....	3-9

TABLE OF CONTENTS

(continued)

<u>Section</u>	<u>Page</u>
4 ATTENDANCE ESTIMATES AND ECONOMIC GUIDELINES....	4-1
Potential Market Capture and Attendance	4-1
Projections for the Centennial Programs	4-8
Event Scheduling	4-13
Preliminary Financial Analysis.....	4-15
Admissions Revenues	4-17
Merchandise and Food Service.....	4-17
Parking Revenues	4-22
Total Operating Revenue	4-22
Estimated Operating Expenses.....	4-22
Residual Surplus Income.....	4-23
 5 ECONOMIC IMPACT.....	 5-1
Economic Assumptions	5-1
Organizing Committee Funding.....	5-2
Economic Impact.....	5-5
 6 MANAGEMENT REQUIREMENTS	 6-1
Management Structure.....	6-1
Senior Management Responsibilities.....	6-4
Staffing Schedule.....	6-9
Contractual Relations.....	6-11
 7 MARKETING AND LICENSING PROGRAM	
Marketing Objectives.....	7-1
Marketing Programs to Achieve the Objectives	7-1
Licensing and Merchandising Objectives.....	7-3

TABLE OF CONTENTS (continued)

<u>Section</u>	<u>Page</u>
8 DEVELOPMENTAL TIMELINE.....	8-1
Developmental Stages.....	8-1
Planning (present to 1999)	8-1
Implementation (January 2000 to May 2001).....	8-2
Production (June 2001 to March 2004).....	8-3
Staffing Plan Timeline.....	8-4
Planning (present to 1999)	8-4
Implementation (January 2000 to May 2001).....	8-4
Production (June 2001 to March 2004).....	8-5
9 RECOMMENDATIONS AND CONCLUSIONS.....	9-1

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1 Community Facilities in Dayton.....	1-8
2 Performing Arts Venues in Dayton	1-9
3 Population Trends in the Dayton Market Area	3-6
4 Age Distribution of the Dayton Market Area Population, 1997.....	3-7
5 Age Distribution of the Dayton Market Area Population, 2002.....	3-8
6 Household Income Distribution in the Dayton Market Area, 1997	3-10
7 Household Income Distribution in the Dayton Market Area, 2002	3-11
8 Comparative Demographic Characteristics for Selected Major U.S. Metro Areas.....	3-12
9 Estimate of Overnight Visitors to Dayton/Montgomery County.....	3-13
10 Aggregate Market Support Available to the Dayton Area.....	3-15
11 Market Capture Rates of Major Air & Space Attractions.....	4-2
12 Attendance History of Selected Major Air & Space Attractions.....	4-4
13 Selected Characteristics of Visitors to the National Air & Space Museum	4-5
14 Market Capture Rates of Dayton Cultural/Entertainment Attractions	4-9
15 Attendance Targets for the Centennial Year-Long Program.....	4-10
16 Attendance Targets for the Centennial.....	4-12
17 Monthly Distribution of Attendance at Major Air & Space Attractions.....	4-14

LIST OF TABLES

(continued)

<u>Table</u>	<u>Page</u>
18 Illustrative Arrival and Departure Patterns on Design Day	4-16
19 Major Commercial Entertainment and Cultural Attractions in the Greater Dayton Area	4-18
20 Characteristics of Major Air & Space Attractions	4-19
21 Estimated Operating Revenue for the Centennial Exposition.....	4-21
22 Pro Forma Financial Analysis for the Centennial Exposition	4-24
23 The Economic Impact of Direct, Off-Site and Operating Development Expenses	5-4

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1 Dayton's 300-Mile Containment Area.....	3-2
2 Dayton's 50- and 100-Mile Containment Areas.....	3-5

Section 1

INTRODUCTION

In 2003 Dayton will produce an international yearlong celebration of the Centennial of Powered Flight. Dayton is hosting this remarkable anniversary because Wilbur and Orville Wright lived in Dayton, and developed and built the world's first controlled powered aircraft there. In so doing, they made Dayton the birthplace of aviation.

Moving to Dayton in 1869, the Wright brothers began conducting experiments and produced inventions at a relatively young age. In 1889, they started a printing and newspaper business, building their own printing press and in 1890 began publishing their own newspaper. Opening their first bicycle shop in 1892, they learned the arts of tube cutting and engineering that they applied later to their aviation endeavors. The Wrights operated their bicycle shops in West Dayton from 1892 to 1907.

As engineers, the Wrights were methodical and keenly observant. Turning their attention to solving the problems associated with powered flight, they designed a wind tunnel in order to refine the mathematical equation for wing configuration. As master mechanics, the brothers built both the airframes and the internal combustion engines that they flew. Their diligent recording of the successes and failures of each of their many innovations in flight technology laid the foundation for aviation science and technology and its evolution to this day. Each new step on that path continues to shape the lives of all humanity.

These two men from Dayton, Ohio, self-trained in the art and science of aviation, culminated their dreams on December 17, 1903 when at 10:35 am, Orville Wright, having won a coin toss, soared skyward for 12 seconds covering 120 feet, in the

first machine ever to make free, controlled, and sustained flight. The 750-pound aircraft made three other flights that day. At 11:00 am, Wilbur was given the opportunity and flew 175 feet. Orville took a second flight at 11:40 am and this time reached a distance of 200 feet. Wilbur took the last and longest flight of the day at noon and stayed aloft for 59 seconds and traveled 852 feet. News of the Wright's first flight did not impress the local press which ran the story on page 12. Only later was the true impact of this remarkable achievement realized. Their subsequent work at Huffman Prairie Flying Field in Greene County on the outskirts of Dayton refined the flying machine into a practical airplane. Moreover, at Huffman Prairie, the Wrights established a school of flight which trained over 100 military and civilian aviators, many of whom became leading figures in aviation over the following decades.

The Wright Brothers' successful Kitty Hawk Flight was conceived, researched, designed and built in Dayton, Ohio. The Wright Flyer III, the world's first fully controllable and practical airplane was built, modified and tested in Dayton along with the world's first flight school, the first aircraft factory, and the world's first mass-produced airplane -- the Wright "B" Flyer. Dayton's rich history continues to this day from the development of the parachute, to the ejection seat, to work on the development of America's stealth fighter. Wright-Patterson Air Force Base is located adjacent to Dayton and remains one of the world's leading centers of aviation technology.

As described by The 2003 Committee, the purpose of the Century of Flight is "to organize a celebration of the centennial of powered flight, which will draw attention to the Dayton area as the birthplace of aviation and its functions as a world leader in aerospace research and development." The Committee's goal is to make the celebration international in scope and reflect the Wright's inquisitiveness, persistence, and self-discipline through special programs in aviation, cultural arts, education, and sports.

The 2003 Committee

The 2003 Committee is a Dayton region membership-based organization formed for the purpose of producing the Centennial of Powered Flight in 2003. The Committee began operations in 1989 with three primary objectives -- "to drive development of the Dayton Aviation Heritage National Historical Park, so that it will be viable, sustainable and in full operation by 2003; to organize a popular, year-long celebration of the 1996 bicentennial of Dayton Township (Montgomery and Greene Counties), leaving suitable legacies for the future and setting the stage for 2003; and to organize a celebration of the centennial of powered flight."

The organization's structure is governed by a Board of Trustees and includes a Stakeholders Council representing community groups with an interest in the various site locations involved in the Centennial as well as in powered flight itself. Five Standing Committees report to the Board including Finance, Development and Membership, Programs, Nominating and Marketing. Much of the detailed planning for specific special events supporting the Centennial will be provided by the six Centennial Task Forces; the National Park, Festival of Flight, Arts and Culture, Sports, Precollegiate Education and Academic Symposia. Other programs being undertaken by the 2003 Committee include working jointly with the North Carolina First Flight Centennial Commission on joint sponsorship of the Federal Commission on Powered Flight and development of mutually beneficial programs with the Ohio Bicentennial Commission as part of the State's bicentennial in 2003.

In 1992, the Committee successfully established the Dayton Aviation Heritage National Park as a public-private partnership. The Committee has since overseen rapid progress in the Park's development and mission. Visitors to the Park will see how the invention of the airplane influenced the course of human history, and how

the technologies derived from it continue to shape American lives. As part of the Dayton experience, the Park will educate the public about the lives and work of three uncommon men, the Wright brothers and the story of acclaimed author/poet Paul Laurence Dunbar, a contemporary associate of the Wrights in Dayton, and the first African-American writer to gain acceptance among national and international literary critics.

The 2003 Committee has assisted in many of the initial accomplishments of the national park program. A Federal Commission was established to assist in the management of the Park and began planning meetings in 1995. In addition the Committee helped establish the Wright-Dunbar State Commission in 1996 to lead the Park's economic development. During 1996, the 2003 Committee further assisted several programs in support of establishing and improving the physical sites comprising the Park. These included installing historic brick sidewalks and street lights near the Wright's bicycle shop; mounting period street mural art near the National Park Headquarters; installing directional and informational signs; establishing design review guidelines; as well as constructing and installing several exhibits, display spaces, and infrastructure in support of each of the four sites comprising the Park.

A second legacy of the 2003 Committee was to "organize a popular, year-long celebration of the 1996 bicentennial of the Dayton Township (Montgomery-Greene Counties), which would create residual values and provide the operational framework and skills for the promotion of a truly historic and international celebration -- the Century of Flight. The Committee's third stated mission is to organize an international celebration of powered flight centered in Dayton as the birthplace of aviation.

In early 1996 the Committee began the detailed planning process necessary for creating the Centennial. This report is part of that planning effort. Already accomplished are several programs developed by the Committee's Task Forces,

which serve as independent stand-alone events coordinated into one thematic message and experience by the 2003 Committee. These Centennial programs include the National Aerospace Conference to be held in Dayton in 1998 and 2003 on the history and future of flight; The Festival of Flight planned as a world-class air show by the U.S. Air and Trade Show organization; and the Dayton Art Institute plans for curating and organizing a traveling exhibit on flight. Other projects under consideration by the Task Forces for 2003 include a Senior PGA golf tournament, NCAA basketball, and K-12 interactive aviation curriculum for use in the year 2003, as well as a major international exposition and outreach program.

The History and Role of the National Historic Park Sites

In establishing the "Dayton Dream," Congress determined that the National Park Service would play an important but limited role in making the National Park a reality. Congress chose to create the Dayton Aviation Heritage Commission and gave it the primary responsibility for the preservation and interpretive activities which would "assist federal, state, and local authorities and the private sector in preserving and managing the historic resources in the Miami Valley, associated with the Wright brothers, aviation, and/or Paul Laurence Dunbar." Further, the state of Ohio created the Wright-Dunbar State Heritage Commission and assigned it certain responsibilities, including the preparation of a management plan for the properties "that should be preserved, restored, developed, maintained, or acquired." Emphasizing redevelopment of the Wright-Dunbar area of West Dayton, the commission's plan will be prepared in cooperation with the city of Dayton. The result has been the establishment of a tripartite arrangement that requires the cooperation of all three entities in order to fully realize the development of the Dayton Aviation Heritage National Park.

Because of the founding role that both The 2003 Committee and Aviation Trail Inc. have played, both are considered full and active partners in the management and operation of the Park. The Dayton Aviation Heritage National Historical Park was

created in October 1992 as a product of a 1989 National Park Service study funded through the 2003 Committee. The dispersed sites that comprise the Park are four regional national historic landmarks. A core unit is centered in the Wright Cycle Company building, the Hoover Block, and the vacant land between these two structures. The Park was given title to both the Hoover Block and the Wright Cycle Company building in 1995 as donations from the 2003 Committee. The Committee had purchased the buildings from Aviation Trail, Inc. using state of Ohio capital improvement funds. A second Park site is located in Carillon Historical Park, a private museum complex concerned with Dayton and southwestern Ohio history. It houses the 1905 Wright Flyer III, the world's first truly practical airplane capable of fully controlled flight, a national historical landmark. The plane was restored under the supervision of Orville Wright in the 1940's and is displayed in Wright Hall, which was constructed for the sole purpose of displaying this aircraft.

The Huffman Prairie Flying Field in Greene County, the third site in the Park, is adjacent to Huffman prairie, the largest prairie remnant in Ohio. In 1986 all of Huffman Prairie, including a small portion that overlaps the flying field, was designated an Ohio natural landmark. The flying field is managed by Wright-Patterson Air Force Base, which works cooperatively with other members of the Park consortium in planning for increased public visitation. After the first successful powered flights in 1903 at Kitty Hawk, North Carolina, the Wrights erected a hanger for the Wright Flyer III on the Huffman farm outside of Dayton. For two years they worked in secrecy, mastering the principles of controlled powered flight. In 1905 they built a second hanger for the Flyer (III). The Wrights built a third hanger in 1910 that became the base for the world's first permanent flying school. A replica of the 1905 hanger remains on the site of the original structure.

The fourth site of the Park celebrates the achievements of Paul Laurence Dunbar. The Paul Laurence Dunbar State Memorial is operated by the Ohio Historical Society, located just five blocks from the Wright's Bicycle Shop. Orville had been his boyhood friend and the Wright's had printed the Dayton Tattler, a newspaper

Dunbar edited. In 1903 Dunbar returned to Dayton and lived with his mother in the memorial house, completing his last work there. He died there in February 1906 at the age of 33. During her life, Dunbar's mother preserved the house much as it was at the time of his death. The house, a national historic landmark, contains original furnishings and artifacts including a bicycle that was given to Dunbar by the Wright brothers.

The Dayton Aviation Heritage National Historical Park does not plan to acquire or manage significant collections or documents related to the Wright's or Dunbar. Such materials are well represented in collections within the community. The primary role of the Park will be to serve as a single organizing source guiding interested parties to appropriate locations. Collections at partner sites to the Park will continue to be owned and managed by their current caretakers. However, Park collections will be necessary to provide interpretive experiences at the Wright Cycle Company building and in the Hoover Block. In the Park administrative office on the second floor of the Wright Cycle Company building, a small reference library is being developed which will include archival documents and photographs. Aviation Trail Inc. owns the current exhibits at the Wright Cycle Company building. These displays and materials are managed according to ATI standards. A loan agreement being developed with Aviation Trail Inc. will provide for a long-term transfer of custody to the National Park Service.

Existing Venue Inventory

As a gauge of the ability of Dayton to host supporting activities for the Centennial, the following **Tables 1** and **2** list major existing facilities.

Study Scope and Methodology

The 2003 Committee's third and final mission is to organize the celebration of the Centennial of Flight including:

Table 1
COMMUNITY FACILITIES IN DAYTON

<u>Location</u>	<u>Activity</u>	<u>Size</u>
1. Air Force Museum	Exhibits Fly-ins Galas/presentations	Landing field 400,000 sq.ft
2. Dayton Airport	Air Show	Landing field
3. Dayton Art Institute	Exhibits	480-seat hall Exhibit Space
4. Downtown Streets	Folk Festival	
5. Carillon Park	Exhibits	65 acres Special events
6. University of Dayton Arena	Sports Performances	13,500 14,200
7. NCR Country Club	Golf Tournament	Golf Course
8. Warren County Golf	Golf Tournament	
9. Kettering Field	Softball	
10. Wright State University	Wright State Halls	sev. Hundred

Source: 2003 Committee.

Table 2
PERFORMING ARTS VENUES IN DAYTON

Fraze Pavilion	4,300
Loft Theatre	223
Victoria Theatre	1,139
Memorial Hall	2,501
Nutter Center	1,000-12,000 depending on configuration
Dayton Convention Center	675 theater/exhibition hall 1,000+ depending on configuration
University of Dayton Arena	14,200 concert/13,500 sporting event
Dayton Playhouse	185
Hara Arena	7,200
Wright State Theatre	376
University of Dayton Boll Theatre	200
Sinclair Community College Blair Hall	484
Masonic Temple Theatre	1,800
Dayton Art Institute	
NCR Renaissance Theatre	480

Source: 2003 Committee.

- Support the Committee in the development of key aspects of the Master Plan
- Determine the programmatic content of a Centennial Exposition
- Analyze market support for physical attendance at festival activities
- Prepare attendance projections
- Convert estimated attendance into basic physical sizing guidelines
- Recommend an admission price schedule
- Assess the project's financial outlook
- Estimate the economic impact of the Centennial
- Provide suggestions on a management structure
- Develop guidelines for 2003 marketing
- Create a Centennial timeline.

To aid in this process, the 2003 Committee authorized Harrison Price Company (HPC) to prepare a Feasibility and Economic Planning Study for the Festival of Flight.

The study is divided into nine sections including this Introduction which describes the Centennial of Flight background, the purpose of the 2003 Committee, the role and structure of the National Historic park and the study scope and methodology. Section two, Program Concept Parameters, outlines the content of the program. This includes programmatic content, and descriptions of the Festival of Flight program, Air Force Museum programs supporting the Centennial, the air show, Dayton Art Institute aviation programs for 2003, Carillon Park program at Wright Hall, Aviation Trail programs, and the several Task Force events. Section three, Market Environment, analyzes the visitor opportunity including a description of the existing tourism market, regional accommodations, and attendance projections at the various Centennial Programs. Section four, Attendance Estimates and Economic Guidelines, covers financial projections. Within this material is an analysis of attendance projections, revenue sources from admissions, food and beverage revenues, merchandise revenues and outside funding sources.

Projected operating costs are estimated to determine the net financial position of the event. In Section five, Economic Impact, the report details the economic impact of the Centennial. Section six, Management Requirements, proposes a management structure, contractual relations with Task Force implementors and staffing requirements. The Marketing and Licensing Program is presented in Section seven and Section eight, Developmental Timeline, provides a timeline for pre-Centennial mileposts. Section nine summarizes the implementation and conclusions of the study.

General Limiting Condition

Every reasonable effort has been made to ensure that the data contained in this study reflect the most accurate and timely information possible, and they are believed to be reliable. This study is based on estimates, assumptions and other information developed by HPC from its independent research effort, general knowledge of the attractions industry and consultations with the client and the client's representatives. No responsibility is assumed for inaccuracies in reporting by the client, the client's agent and representatives or any other data source used in preparing or presenting this study.

This report is based on information that was current as of October 1997 and Harrison Price Company has not undertaken any update of its research effort since such date.

No warranty or representation is made by Harrison Price Company that any of the projected values or results contained in this study will actually be achieved.

This study is qualified in its entirety by, and should be considered in the light of, these limitations, conditions, and considerations.

Section 2

PROGRAMMATIC CONCEPTS

Program content reflects both the mission and purpose of an event along with a presentation style and format that piques market interest. In the case of the Centennial, the programmatic content must sustain interest in aviation for a year-long set of activities. The responsibility for developing this content has been shared between the 2003 Committee acting as a community catalyst and guiding light and Task Forces that have organized themselves into several community programs. The following material details the programs currently in planning by the Task Force Committees, a program plan for the July 2003 pinnacle Dayton event, and the proposed Centennial Exposition that will be directly produced by the Organizing Committee.

Task Force Programs

Several separate Task Force programs have a common objective of "organizing a celebration of the centennial of powered flight, which will draw attention to the Dayton area as the birthplace of aviation and a world leader in aerospace research and development" (as stated by the 2003 Committee 1996 Annual Report).

Programs at U.S. Air Force Museum

1. Complete redesign and update of the Wright Brothers Exhibit
2. Open Wright Brothers tile mural in Kettering Gallery
3. "Gathering of Eagles" lectures and dinner

4. WWI aircraft fly-in (3-days)
5. One air-related record attempt per month
6. Smithsonian traveling aviation exhibits
7. Two major aviation art shows and black-tie galas
8. Two major new exhibits
9. International kite festival
10. International large-scale radio controlled model aircraft fly-in (3-days)

U.S. Air and Trade Show Programs

1. A series of aviation associations events brought to Dayton such as the EAA event in Dayton, helicopter association, glider association, etc.
2. An enhanced world-class Air Show to be produced at the Dayton airport
3. A Trade Show and Exposition to take place at the Air Force Museum during the Air Show week

Carillon Historical Park Programs

1. New exhibits in the west wing of Wright Hall
2. Aviation in Dayton exhibit in the new Education Center to showcase regional present day innovations in aviation and the tie to Dayton's historical aviation roots
3. An international bicycle event and showcase the updated Wright Cycle Shop
4. Children's Day camp and workshop on the Wrights' aviation achievements
5. Aviation lecture series in July
6. National quilt contest with aviation theme

Dayton Aviation Heritage National Historical Park Programs

1. Walking tours of the Wright-Dunbar Village
2. Special lecture series and general events at the Wright Brothers Plaza

Dayton Art Institute Programs

1. Premier art exhibit sponsored jointly with the Smithsonian Institute. The exhibit will travel throughout the year but will be located in Dayton during the summer months

Arts and Culture Events Programs

1. Outdoor Wright Brothers musical performances to be performed throughout the summer of 2003
2. Folk Festival to take place downtown as part of the Centennial Exposition in July 2003
3. Dayton Philharmonic plans four commissioned works to be premiered during the Centennial year
4. Dayton Opera plans international guest artists throughout the 2002-03 season
5. Special performances by international artists during the Centennial Exposition
6. Dayton Contemporary Dance Company will perform three programs during the 2002-03 season with themes including the Tuskegee Airmen, Bessie Coleman and a Wright Brothers commissioned work
7. Aviation film festival
8. Special programs produced by the local professional theater company (Human Race Theater) and the Dayton Ballet

Sports Programs

1. State, National and World Trapshooting Tournaments in June, August, and October near the airport in Vandalia
2. UNC versus University of Dayton basketball game in January 2003 in UD Arena
3. MCC Basketball Tournament in February/March at the WSU Nutter Center
4. NCAA Women's Basketball Regional Tournament during March in UD Arena
5. USGA Senior Open in July at the NCR Country Club south of Dayton
6. Nike Open Golf Tournament in June/July in Warren County
7. LPGA Star Bank Tournament in August at the Country Club of the North in nearby Greene County
8. Black American Softball Tournament during September 2003 at the Kettering Field in Dayton

Educational Programs

1. International Aerospace Conference October 1998 and July 2003 at Wright State University to take a comprehensive evaluation at flight's first century
2. Aviation Photography International program
3. Aviation Art Competition
4. National Summer Teacher Institute
5. World roundtable for the class of 2003
6. Century of Flight school curriculum project

Pinnacle Events

It is important to concentrate the emotional and psychological tension of the Centennial within a small number of events (likely to be no more than three programmatic events). Otherwise, the drama of the Centennial and the message that it carries will become diffused over the year and become lost in the media

background of everyday events. The challenge of Centennial programmatic planning is to create sufficient energy to attract the attention of the international community. This is accomplished by creating a critical mass of activities capable of generating attendance. The three pinnacle events should account for 60 percent of visitation. They should each carry the emotional message of the Centennial. Three program periods are proposed; May 2003, mid-July 2003, and the end of September/early October 2003. The Centennial has two other shoulder events which should be recognized in some activity -- the year-long kick-off event on December 15, 2002 and the actual Centennial day of the Wrights' first flight on December 17, 2003. The following material briefly describes the programmatic content of each of the three pinnacle periods.

May 2003

Each of the three pinnacle periods needs to isolate one attractant (event or presentation) that will fire the emotions and imaginations of the public with the inspiring drama and power of the Wrights' journey to flight and the drama of flight through the last century. Too many mediocre experiences will not allow the Dayton experience to be elevated to international stature. The Committee should select one event from its schedule for each period to fashion into an exceptional experience. And of the three periods, the experiences that will have the highest impact will be staged during mid-July 2003. Each of the three periods should be developed on a different thematic base. For May, HPC suggests creating the Centennial of Flight International Cultural Festival. Programs would include:

1. Premier art exhibit at the Dayton Art Institute sponsored jointly with the Smithsonian Institute
2. Open Wright Brothers tile mural in Kettering Gallery
3. A major aviation art show and black tie gala at the Air Force Museum
4. Premier a Smithsonian aviation exhibit at the Air Force Museum

5. National quilt contest with aviation and period work as a theme
6. Premier of the Dayton Philharmonic commissioned work celebrating the Wright Brothers' achievement of flight
7. Dayton Opera presentation of international guest artists
8. Dayton Contemporary Dance Company premier of its commissioned work on the Wright Brothers in Dayton
9. Aviation film festival
10. International Aviation Photographic Contest
11. Supporting programs by the local professional theater company and the Dayton Ballet

For these ten days in May 2003, Dayton will function as an international cultural center. It will accomplish that objective by providing a high caliber of cultural arts throughout the ten-day festival. The goal is to integrate these cultural programs into a festival context attracting national attention and strong regional attendance from the 0- to 100-mile market.

July 2003

Mid-July 2003 will be the pinnacle event time period for the Centennial. The ten-day program will run from Friday through the second Sunday, providing two week-ends to anchor regional visitation as well as a Centennial Exposition that covers the entire period.

The first week-end will be anchored by an international-class air show to be produced for the Committee by the U.S. Air and Trade Show corporation. The Air Show program includes:

1. A world-class air show produced at the Dayton airport
2. WWI aircraft fly-in for the three days

3. "Gathering of Eagles" lectures and dinners at the U.S. Air Force Museum
4. Several Air-related record attempts
5. A 10-day series of aviation association events such as the EAA event in Dayton, the helicopter association meeting, and the like
6. An international kite festival (to offer a children's activity)
7. Aviation lecture series at Carillon Park

Other strong aviation related attractants will anchor the Air Show and its attendant activities on the second week-end such as:

1. Induction ceremonies for the international aviation Hall of Fame
2. Major aviation association conference
3. International large-scale radio controlled model aircraft fly-in for three days
4. A major Aviation Trade Show and Exposition (Thursday ñ Sunday) to take place at the Air Force Museum (utilizing the to be built 200,000 sq. ft. exhibit space)
5. Dedication of new exhibits in the west wing of Wright Hall
6. Aviation in Dayton exhibit to showcase regionally developed innovations in aviation
7. World roundtable for the class of 2003

Throughout the ten-day period there will be a Centennial Exposition that is a multi-venue series of programs that to the extent practicable are organized into one gated entry price. Activities that will tie the overall pinnacle week together are presentation, message and entertainment driven. Activities would include:

1. Outdoor musical performances to be performed at locations throughout the week
2. Folk Festival to take place downtown
3. Exposition Activity Village offering entertainment, exhibitions, contests

4. Week-long aviation lecture series
5. Children's workshops
6. International-class contemporary entertainers performing during the week

September/October Period

The third ten-day period for focused activities in Dayton is timed for September or early October. The thematic content of this period is built around educational and information-based programs which aim to reach high acceptance and participation levels. In order to achieve these objectives the Committee must elevate one or two of the programs to international "must-attend" levels while at the same time maintaining a generally high standard for background activities. Types of programs under consideration are:

1. International Aerospace Conference for October 2003 at Wright State University
2. Unveiling the Century of Flight curriculum project
3. National Teacher Institute training
4. Aviation lecture series
5. Technical trade shows on specific aviation manufacturing or information-based topics
6. International Technical Aviation Honors/Hall of Fame Induction
7. Several air-related record attempts during one weekend
8. Tie-in with the Ohio Bicentennial celebration in October

December 15, 2002

Two other supporting periods (in this case, a specific date) are recommended to become part of the special hallmark programs of the Centennial. December 15, 2002 is an appropriate time to inaugurate the Century of Flight Centennial as that day commemorates exactly one-hundred years from the time when the Wright

brothers began working on the airplane that they eventually flew at Kitty Hawk a little over a year later. The import of this day is to announce to the world that Dayton is the birthplace of aviation and that the year 2003 will focus on the role of aviation in daily life. The activity on December 15 needs to be ceremonial, dramatic and highly charged to get the world's attention. It is also important to position Dayton as the center of the celebration and as the official organizing committee for Century of Flight activities. This day is not a time for emphasizing visitation to Dayton. Its emphasis is to symbolically announce from Dayton to the world that the adventure has begun. Actual planning for this public unveiling needs to be undertaken early on. The development and staging of this key ceremonial launch is likely to be most effectively carried out by contracting with a PR firm qualified in carrying out a theme.

December 17, 2003

From the general public's perspective, this day belongs to Kitty Hawk and the attendant celebration that the North Carolina First Flight Centennial Commission is planning. However, Dayton should play some visible role in this wrap-up celebration.

Year-Long Centennial Activities

Through-out the Centennial year, the Dayton Task Forces are planning events that will promote the Dayton region, although to specific targeted audiences without the intended regional and national impact of the three pinnacle events. The types of events that will meet the interests of various publics in the Dayton area include:

1. State, National and World Trapshooting Tournaments in June, August, and October
2. UNC playing the University of Dayton in basketball in January in the UD Arena

3. Other regional basketball tournaments in February and March
4. National golf tournaments in June, July and August
5. Black American Softball Tournament in September
6. Redesigned, updated and traveling exhibitions at the U.S. Air Force Museum
7. Air-related record attempts every month during 2003
8. Year-long Carillon Historical Park programs featuring the Wrights' contributions to Dayton and aviation
9. Children's aviation camps and workshops
10. Walking tours and programs at the National Historic Park Sites
11. Special community lecture series each month
12. Special performances throughout the year during the Dayton Opera season, the Dayton Contemporary Dance Company program, and from the Human Race Theater company

Centennial Exposition Programmatic Content

The question that the Committee must answer is what will make the Exposition visitor experience, be it one day or ten, wondrous and inspiring. It is suggested that the 2003 Committee consider a rather novel approach to tie-together a series of multiple events and venues. One possible approach for capturing interest and presenting the drama and wonder of the aviation story is to lead the visitor through an adventure.

The story and full experience can take place over several days and within multi-venues. HPC believes that the Dayton experience is not conducive to a one-gate attraction but that the Exposition might be comprised of a series of activities and experiences spread over multiple venues but under a one-ticket passport. The visitor would be given three purchase options. The first is to buy an all-venue, all-Exposition pass with entitlement to experience any program on any day. A second option would be a one-day pass good for all venues; and the third option would be

a specific package program. From a practical viewpoint, a visitor might come for a three-day weekend and experience the Air Show, and several activities of specific interest all under one packaged ticket program. The Exposition becomes the network concept that ties together all the separate operating venues for the ten days in mid-July. The programs need to be designed so that certain venue programs will have appeal to children, others to women, and the majority to men as it is assumed that 60 percent of the tickets over the ten-day period will be purchased by males.

Thematic orientation should draw from three converging, historic forces. First, the celebration has historical dimensions, specifically, a centennial. Secondly, the State of Ohio is celebrating its bicentennial and will be supporting related events within the state. Thirdly, the achievements of the Wright brothers will be commemorated.

The determination of actual activities which will create a sense of adventure in context with appropriate history needs to be addressed by a special events planner. The next step is to actually prepare a story board and venue outline depicting how the Committee's messages and story will be told.

Presentation Issues

Thoughtful creativity concerning the methodology by which all elements of society--technical, aviation buffs, professionals, amateurs, children or adults, privileged or disadvantaged--can enjoy and access the Centennials programs must be addressed by the Organizing Committee. The majority of the Centennial's events are built for a series of specialized audiences that will respond to the programs being offered in Dayton. However, the mid-July program is based on a mass appeal from the Air Show to the Centennial Exposition. Effectively reaching a mass audience requires employing a communication medium that captures the broadest possible common denominator. Entertainment is that medium.

Entertainment simply means to enter and to retain. Entertainment can be effectively utilized to package an educational/informational message with fun and excitement. In particular, the July week should emphasize entertainment that is meant to inspire the audience and to raise awareness of the role of Dayton and the Wright brothers in aviation history.

Other presentation issues that need to be considered by the Organizing Committee include determining which activities will allow the entire Dayton community to experience some aspects of the Centennial celebration. The Committee also needs to define the specific content of the themes and messages that it desires to convey to the world about the Century of Flight, the Dayton region, the Wright brothers, and specific Centennial Task Force programs. A clearly articulated message repeated often will reach the intended audience. It must be both very precise and repeated throughout all the activities and presentations that are part of the official Centennial program. Finally, the issue of where to locate certain activities must be addressed by the Committee. This deals with such issues as whether the Centennial will be utilized to gather community support for urban renewal programs; whether physical legacies will become part of the program; and which sites already are in development for other purposes but could be diverted for the Centennial's use during 2003.

The vast majority of the Centennial activities have certain natural venues such as the Air Show utilizing the Dayton Airport grounds. Although the Organizing Committee has not yet contracted with these venues for their use in 2003, a general consignment has been considered by the Committee. However, this is not true for the Centennial Exposition. This analysis has considered eight site options for the Exposition:

1. The Wright-Dunbar community centered around the historical sites

2. Carillon Park and Wright Hall
3. The proposed ballpark and riverfront development
4. The Air Force Museum and surrounding support area
5. The downtown park adjoining the Wright flight sculpture
6. The Convention Center area
7. The downtown closed Arcade Shopping Plaza
8. The Lazrus Department Store site

We believe the Dayton area has an exceptional resource in the U.S. Air Force Museum and that the Committee should utilize it, if possible, in several capacities over the Centennial year. The venue has these advantages:

1. Unparalleled regional support
2. 620,000 square feet of existing exhibit area
3. Over 1 million visitors interested in aviation and aviation history
4. Fifteen acres of parking with ready accommodations for motor homes and trailers
5. Fully equipped visitor's center manned by the Convention Bureau volunteers
6. 500-seat IMAX theater
7. 500-seat auditorium
8. Special events support personnel

Summary

The Dayton region should become the public's preferred alternative for mid-summer destination travel during 2003. Interest should be strongest in the 0- to 100-mile resident market and beyond in the 100- to 300-mile extended market area. The Centennial Exposition period in mid-July will offer visitors a comprehensive opportunity to learn the full story of the Wright brothers in the development of aviation and to find world-class entertainment for the entire family.

Those in the region with interests more firmly rooted in the cultural arts, can plan a visit during the cultural festival in May. For those technicians and professionals interested in the impact of aviation on technology and culture, the appropriate time for a visit is during the Air Show's trade shows and in September and October. Three pinnacle program periods are offered in order to attract those interest groups that are being targeted. During the remaining months of the year, the Dayton region will present programs aimed primarily at residents with a two-hour drive-time. Approximately 40 percent of the Centennial event visits will come during these periods. In summary, the Dayton and Wright stories are sufficiently compelling to serve as a basis for a successful Centennial program.

Section 3

MARKET ENVIRONMENT

The size and demography of the market are fundamental determinants of success for any special event. To establish a basic framework for the year-long Centennial of Flight celebration as well as the ten-day Centennial Exposition, this section of the report is devoted to a review of the market environment.

Regional Orientation

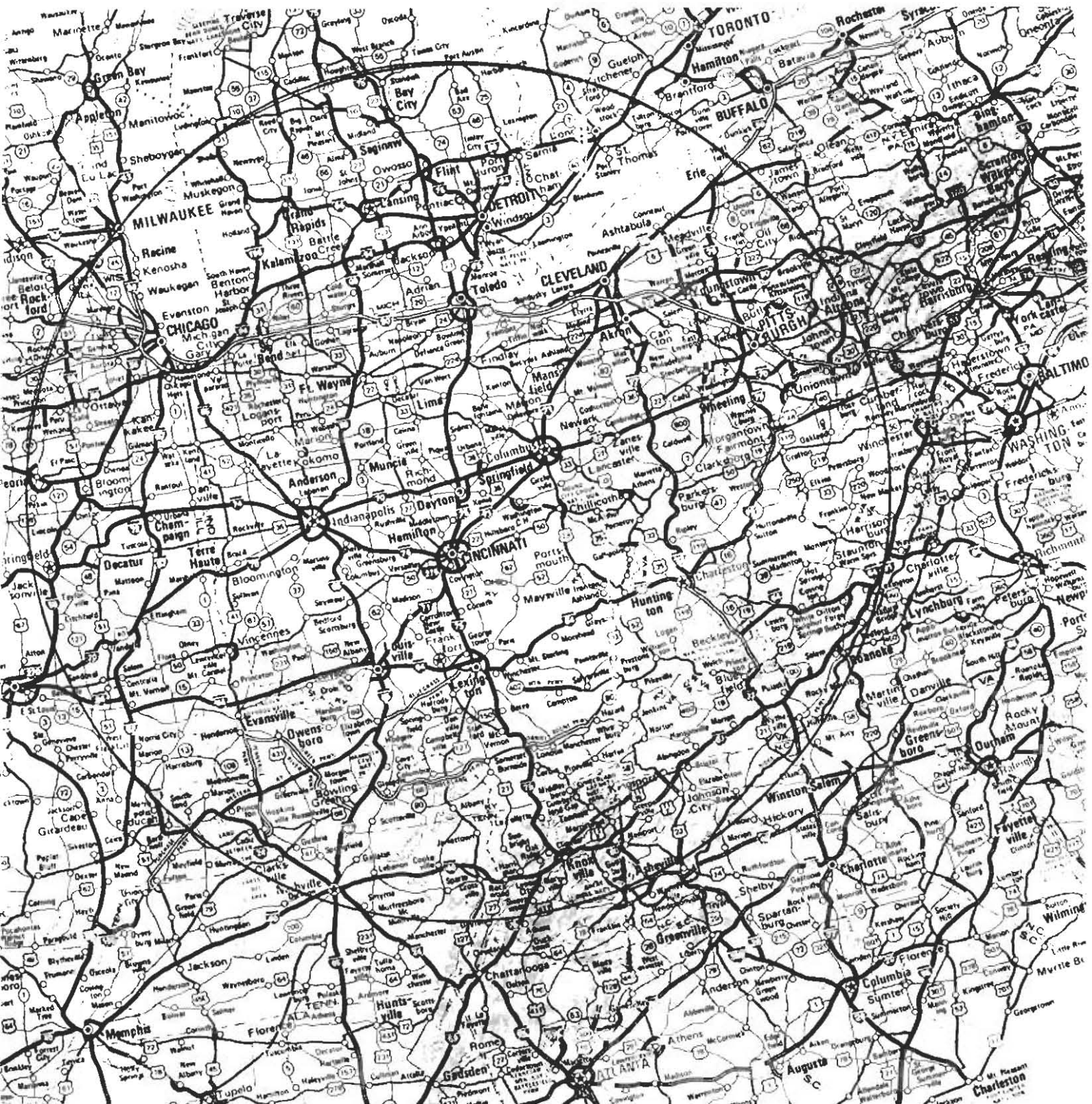
The Centennial activities and Centennial Exposition will be centered in the greater Dayton region represented by the Dayton/Springfield Metropolitan Statistical Area (MSA). Based on extrapolation of the 1990 census, the metropolitan area had a total population of 950,000. The more relevant 1997 primary 50-mile market contains 2.57 million people as shown in **Figure 1**. The estimate for 2002 is a 50-mile primary market of 2.789 million. Urban residents comprise 85 percent of the metropolitan total.

Dayton has undergone several urban transitions during this century. World War I spurred economic investment with thousands of jobs and an explosion of growth. The population of the City of Dayton reached a peak of 262,000 in 1960. Major employers General Motors and National Cash Register together employed 50,000 workers. After 1960, economic and social transitions came into play. The City experienced exodus of business people and a physical decline of the West Dayton neighborhood. The overall population decline bottomed to less than 190,000 by 1990. Per capita income declined from a level nearly equal to the national average in 1970 to 74 percent of the national average in 1990.

The Dayton/Springfield area employment base has been shifting since 1970 from manufacturing to the service and high technology sectors. Retail trade accounts for

Figure 1

DAYTON'S 300-MILE CONTAINMENT AREA



the largest number of workers with 17.7 percent of total employment. Manufacturing is next with 16.7 percent. Today, major private sector employers include General Motors, Navistar, and NCR. Wright-Patterson Air Force Base also is a major employer.

Dayton is located in the southwest corner of Ohio in the midst of the most densely populated region of America. Residents within a 300-mile (6-hour drive) total 50.6 million in 10 states. The states surrounding Dayton, shown in Figure 1, are Ohio, Pennsylvania, West Virginia, Virginia, Kentucky, Tennessee, Indiana, Illinois, Wisconsin and Michigan. Dayton is situated on the north-south interstate 75 and the east-west interstate 70. Cincinnati, Ohio is only 60 miles south on route 75, and Columbus, Ohio is approximately 75 miles east of Dayton on route 70. Indianapolis is 110 west of Dayton on route 70, and Chicago is 300 miles northwest of Dayton on route 65 N. The regional highway system serving the greater Dayton metropolitan area includes I-75, I-70 and I-675 which skirts the city on its eastern fringes. U.S. Highway 35 also bisects the city on an east/west alignment. Major state access routes include OH 4, 201, and 444.

The Dayton International Airport, a modern commercial facility, is served by 16 airlines with a total of 103 flights per day. However, most of the national airline passenger traffic is routed through the Cincinnati airport. The Miami Valley Regional Transit Authority operates a public transit network that consists of a fleet of buses. This extensive network provides an efficient public transportation service throughout the greater Dayton and Miami Valley region.

A variety of land uses occur in the Miami River valley in Montgomery and Greene Counties. The dominant land use in the valley is urban/suburban and industrial interspersed with rural farmsteads, hardwood forests and prairie.

Regional Resident Market

The three components of the market that will generate most of the visitor attendance at Centennial activities are the resident market (0 to 100 miles), the extended resident market (100 to 300 miles), and overnight tourists. Highlighted in the section to follow are the size and salient characteristics of these three market segments:

As shown in **Figure 2**, the resident market for a special event or attraction is defined as a containment area from which a one-day round-trip excursion can be made to a point of interest, with enough remaining time for the events full enjoyment. For most special events, this is typically a radial distance of approximately 100 miles, or up to two hours in driving time. Because industry experience reveals an inverse relationship between travel distance and the propensity to attend, this market is further segmented into primary and secondary components made up of 0- to 50-mile and 50- to 100-mile segments both of which are manageable in a day trip.

As shown in **Table 3**, 2.7 million people currently reside within the 50-mile primary Dayton resident market. The secondary market from 50-100 miles contains 4.5 million. Together, 7.2 million people reside within a day trip driving distance (a large market). Projections indicate 2.79 million within 50 miles and 7.48 million within 100 miles by the Centennial year. An impressive population characteristic of the expanded Dayton region is the population within 300 miles, which represents the potential market basin for Centennial visitation. The current 1997 estimate is 50.6 million which makes it the largest 300-mile market containment in the U.S. The projection for the Centennial planning year, 2003, is 52.0 million in the 300-mile market.

Age characteristics of the 1997 Dayton regional market are set forth in **Table 4**. The primary and secondary and extended market age composition varies insignificantly. In the primary market, 29 percent is under 19. Seniors, 65 years and older, represent 12 percent of the primary market. Median age is 34.2 years. **Table 5** illustrates age distribution for 2002. It shows a slight growth in the under 19 age group to 30 percent

CACI Marketing Systems

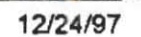


Table 3
POPULATION TRENDS IN THE DAYTON MARKET AREA
1990-2002

<u>Year</u>	<u>Total Population (000)</u>			<u>Total</u>
	<u>Primary Market (0-50 Miles)</u>	<u>Secondary Market (50-100 Miles)</u>	<u>The 300-Mile Containment 100-300 Miles</u>	
1990 Census	2,567	4,261	38,584	45,412
1997 Estimate	2,699	4,515	43,385	50,599
2002 Projection	2,789	4,692	44,563	52,044
Compounded Annual Growth 1997-2002	0.66%	0.77%	0.54%	Average 0.65%

Source: CACI Marketing Systems and Harrison Price Company.

Table 4

**AGE DISTRIBUTION OF THE
DAYTON MARKET AREA POPULATION
1997
(000)**

Age Group	Total Population			Total
	Primary Market (0-50 Miles)	Secondary Market (50-100 Miles)	Extended Market (100-300 Miles)	
0-4	194	302	2,948	3,443
5-14	409	640	6,195	7,244
15-19	198	336	3,161	3,695
20-24	177	306	2,864	3,347
25-34	384	653	6,159	7,195
35-44	436	736	6,991	8,163
45-64	560	971	9,230	10,761
65-74	189	317	3,205	3,711
75-84	113	118	1,985	2,216
85 and Over	40	65	648	<u>753</u>
Total				50,529

Percent Distribution			
0-4	7	7	6
5-14	15	14	14
15-19	7	7	7
20-24	7	7	7
25-34	14	14	14
35-44	16	16	16
45-64	21	22	21
65-74	7	7	7
75-84	4	4	5
85 and Over	<u>1</u>	<u>1</u>	<u>1</u>
Total	100	100	100

* Totals may vary due to rounding.

Source: CACI Marketing Systems and Harrison Price Company.

Table 5

**AGE DISTRIBUTION OF THE
DAYTON MARKET AREA POPULATION
2002
(000)**

Age Group	Total Population			Total
	Primary Market (0-50 Miles)	Secondary Market (50-100 Miles)	Extended Market (100-300 Miles)	
0-4	191	298	2,888	3,377
5-14	418	660	6,305	7,383
15-19	213	357	3,298	3,868
20-24	194	329	3,071	3,595
25-34	337	581	5,516	6,434
35-44	436	739	6,845	8,020
45-64	652	1,141	10,739	12,532
65-74	183	308	3,035	3,526
75-84	121	204	2,112	2,436
85 and Over	46	76	752	<u>874</u>
Total				52,044

	Percent Distribution			
0-4	7	7	6	
5-14	15	15	14	
15-19	8	8	7	
20-24	7	7	7	
25-34	12	12	12	
35-44	16	16	15	
45-64	23	23	24	
65-74	7	7	7	
75-84	4	4	5	
85 and Over	<u>2</u>	<u>2</u>	<u>2</u>	
Total	100	100	100	

* Totals may vary due to rounding.

Source: CACI Marketing Systems and Harrison Price Company.

in the primary market and remains at 27 percent in the extended market. Senior citizens 65 years and older increase to 13 percent of the primary market and 14 percent of the extended market. A current income profile for the Dayton regional markets is presented in **Table 6**. It indicates that 37 percent of all area households report incomes in excess of \$50,000 per year in 1997 in the primary market and 33 percent in the extended market. The 1997 report also indicates that 29 percent earn less than \$25,000 in the 50-mile radius, 32 percent in the 300-mile radius. Current median primary market household income is approximately \$42,000 and approximately \$38,000 in the extended market. **Table 7** shows a moderate increase in household incomes by 2002. In the primary market median income will be approximately \$46,000. The extended market median household income is projected to increase to approximately \$42,000. Relative to mainstream America, Dayton is affluent.

Comparisons with other metropolitan areas are shown in **Table 8**, (population, median household incomes, and median age). The extended 300-mile Dayton population containment is the largest in the U.S. The primary metropolitan market area of 2.75 million ranks 22nd nationally. In comparison to the U.S. average, the Dayton primary region median household income is 18.9 percent higher. It is a relatively prosperous income level.

Overnight Tourism Market

The Dayton area is not a primary tourist destination. The majority of its overnight visitors travel through the region on I-70 or I-75 attending the many business-related conventions, seminars, and sales activities that support the area. **Table 9** provides an empirical estimate of overnight tourism to the Dayton/Montgomery/Green County market. More than 2.8 million travelers are estimated to have overnighted in the area in 1997. Conservatively estimating a 2.3 percent per year growth rate, total overnight visitor traffic will grow to 3.2 million by the Centennial year. The primary market area now contains 8,217 hotel/motel rooms with 62 percent occupancy.

Table 6

**HOUSEHOLD INCOME DISTRIBUTION
IN THE DAYTON MARKET AREA**

1997

(000)

Income Group	Total Population			Total
	Primary Market (0-50 Miles)	Secondary Market (50-100 Miles)	Extended Market (100-300 Miles)	
Less than \$15,000	162	291	2,907	3,360
\$15,000-\$24,999	137	249	2,267	2,563
\$25,000-\$34,999	148	263	2,333	2,744
\$35,000-\$49,999	202	342	3,028	3,572
\$50,000-\$74,999	204	327	2,932	3,464
\$75,000-\$99,999	89	135	1,229	1,452
\$100,000-\$149,999	57	83	822	963
\$150,000 or more	22	32	361	414

	Percent Distribution		
Less than \$15,000	16	17	18
\$15,000-\$24,999	13	14	14
\$25,000-\$34,999	14	15	15
\$35,000-\$49,999	20	20	19
\$50,000-\$74,999	20	19	18
\$75,000-\$99,999	9	8	8
\$100,000-\$149,999	6	5	5
\$150,000 or more	2	2	2
Total	100	100	100

* Totals may vary due to rounding.

Source: CACI Marketing Systems and Harrison Price Company.

Table 7

**HOUSEHOLD INCOME DISTRIBUTION
IN THE DAYTON MARKET AREA
2002
(000)**

Income Group	Total Population			Total
	Primary Market (0-50 Miles)	Secondary Market (50-100 Miles)	Extended Market (100-300 Miles)	
Less than \$15,000	130	240	2,428	2,928
\$15,000-\$24,999	115	216	1,971	1,971
\$25,000-\$34,999	135	248	2,187	2,570
\$35,000-\$49,999	204	352	3,058	3,614
\$50,000-\$74,999	232	380	3,300	3,913
\$75,000-\$99,999	119	186	1,617	1,922
\$100,000-\$149,999	91	133	1,261	1,485
\$150,000 or more	35	49	567	650

	Percent Distribution		
Less than \$15,000	12	13	15
\$15,000-\$24,999	11	12	12
\$25,000-\$34,999	13	14	13
\$35,000-\$49,999	19	20	19
\$50,000-\$74,999	22	21	20
\$75,000-\$99,999	11	10	10
\$100,000-\$149,999	9	7	8
\$150,000 or more	3	3	3
Total	100	100	100

* Totals may vary due to rounding.

Source: CACI Marketing Systems and Harrison Price Company.

Table 8**COMPARATIVE DEMOGRAPHIC CHARACTERISTICS
FOR SELECTED MAJOR U.S. METRO AREAS
1996**

U.S. Population Rank	Metro Area	Total Population (thousands)	Median Household Income	Median Age (years)
1	Greater New York	19,768	\$39,851	35.6
2	Greater Los Angeles	15,644	34,384	32.0
3	Chicago-Gary	8,624	39,802	33.8
4	Washington-Baltimore	7,144	42,737	34.0
5	Philadelphia-Trenton	5,973	38,895	35.4
6	Boston-Worcester	5,787	39,875	35.1
7	Detroit-Ann Arbor	5,282	36,134	34.7
8	Dallas-Ft. Worth	4,523	37,001	31.9
9	Houston-Galveston	4,198	36,597	31.4
10	Atlanta	3,482	36,332	32.9
14	Greater Dayton Area	2,754	38,339	34.2
...	U.S. Average	264,901	\$32,238	34.5

Source: Sales Management, "1996 Survey of Buying Power."

Table 9
ESTIMATE OF OVERNIGHT VISITORS TO
DAYTON/MONTGOMERY COUNTY

Number of hotel/motel rooms	8,217
Average party size	1.8 persons
Average Stay	2.0 days
Occupancy	62 percent
Percent of visitors in hotel rooms	60 percent
Indicated level of 1997 overnight visitors	2.8 million
Project 2003	3.2 million

Source: Harrison Price Company.

A summary of aggregate resident and tourist market support available to the Centennial and Centennial Exposition is contained in **Table 10**. Overall market size, as shown, exceeds 9.7 million currently and will increase to 10.4 million by 2003. As a point of particular interest, the 300-mile containment of 50.6 million is the largest in the nation. Dayton's Centennial can draw from this extended area.

Table 10
AGGREGATE MARKET SUPPORT AVAILABLE
TO THE DAYTON AREA
2003

	Estimated Market Size (thousands)	
	<u>1996</u>	<u>2003</u>
Residential Market		
Primary (0-50 miles)	2,699	2,798
Secondary (50-100 miles)	<u>4,515</u>	<u>4,692</u>
Subtotal	7,214	7,490
Overnight Tourism	<u>2,500</u>	<u>2,872</u>
Total Market	9,714	10,362
The 300-Mike Resident Containment	50,599	52,044

Source: Harrison Price Company.

Section 4

ATTENDANCE ESTIMATES AND ECONOMIC GUIDELINES

Attendance volume achieved by the year-long Centennial and the Centennial Exposition will be a function of several interrelated variables, including market size and demography, the quality and scope of the events, location, admission pricing policy, extent of competition in the regional marketplace, management efficiency, and the aggressiveness of the marketing and promotion effort. Market factors evaluated earlier in this report are largely favorable and suggest that, given adherence to the basic program outlines set forth in Section 2, the proposed Centennial is capable of attaining very respectable attendance levels. This section of the report assesses the attendance outlook and subsequently translates attendance estimates into associated physical capacity requirements. The section concludes with a pro forma analysis of potential financial performance.

Potential Market Capture and Attendance

To establish realistic market capture targets for Centennial events and sites, the experience of comparable attractions and current Dayton region venues furnish reliable guidelines. Certainly one close comparable to the proposed Century of Flight Celebration can be found in the interest that the American public has in aviation and space sciences. **Table 11** summarizes the market capture rates of major air and space museums. As indicated, the highest attendance volume is reported by the Smithsonian's National Air and Space Museum in Washington, D.C. at 8.7 million visitors per year, the most highly attended museum in the world. Free admission, a huge collection encompassing some of the most famous icons of American achievement in air and space flight, and the cachet of the Smithsonian umbrella underlie this exceptional performance. Next in attendance rank is the newly redeveloped Kennedy Space Center Visitor Center at Cape Canaveral, reporting a

Table 11

**MARKET CAPTURE RATES OF MAJOR AIR & SPACE ATTRACTIONS
1996**

<u>Attraction</u>	<u>1996 Attendance (thousands)</u>	<u>Market Size (thousands)</u>			<u>Overall Market Capture Rate</u>
		<u>Primary Resident (0-50 miles)</u>	<u>Overnight Tourist</u>	<u>Total</u>	
National Air & Space Museum	8,668	5,783	19,000	24,783	35.0 %
United States Air Force Museum	975	2,754	2,500	5,254	18.6
U.S. Space & Rocket Center	400	984	2,500	3,484	11.5
Pima Air & Space Museum	227	763	2,000	2,763	8.2
Kennedy Space Center	2,500	2,345	30,000	32,345	7.7
National Museum of Naval Aviation	552	1,026	8,000	9,026	6.1
Space Center Houston	750	4,218	9,100	13,318	5.6
Museum of Flight	534	3,434	6,500	9,934	5.4
Virginia Air & Space Center	225	2,547	8,000	10,547	2.1
San Diego Aerospace Museum	190	2,864	13,500	16,364	1.2
Intrepid Sea-Air-Space Museum	460	19,768	18,500	38,268	1.2

Weighted Average
Including NASM
Excluding NASM

9.2 %
4.5

Source: Harrison Price Company.

substantial 2.5 million annual attendance volume. The impressive shuttle launch complex is this attraction's principal draw. Ranking third is Dayton's U.S. Air Force Museum with 975,000 visitors and expecting 1.1 million for 1997. These are followed by the Space Center Houston with 750,000, the National Museum of Naval Aviation in Pensacola at 552,000, and the Museum of Flight in Seattle at 534,000. Admission prices range from free to \$14.00 adult ticket (combination museum-bus tour-IMAX theater ticket) at the U.S. Space and Rocket Center in Huntsville.

The attendance history for a selection of these major facilities is contained in **Table 12** to demonstrate the long-term popularity of air and space related attractions. Year-to-year variations in attendance reflect a number of factors, including the timing of major new capital projects that expand or upgrade the entertainment/educational offering, local economic conditions and, in some cases, events in the U.S. space program that pique public curiosity and induce a temporary surge in visitation. There has been, however, an overall pattern of attrition from their high attendance marks. The Air and Space Museum is off 40 percent from its high of 14.4 million in 1984, the Kennedy Space Center is down 20 percent from its high in 1990, the U.S. Air Force Museum in Dayton is down 40 percent from its high in 1990 and the U.S. Space and Rocket Center is down 20 percent from its high in 1994. However, the consultants note that most air and space museums attendance are up the last two years and that with a major 200,000-square-foot expansion underway and new leadership at the U.S. Air Force Museum in Dayton, HPC expects that facility to reach near its all-time high attendance of 1.6 million during the Centennial celebrations of 2003.

As an indication of the typical audience drawn to air and space oriented attractions, **Table 13** presents the results of a recent visitor survey undertaken at the National Air & Space Museum (The U.S. Air Force Museum has not conducted detailed demographic surveys of their visitor traffic). Important to note is the key finding that whereas the Smithsonian visitor population as a whole is only slightly more male oriented (52 percent male), Air & Space Museum visitors are much more likely to be men (roughly 60 percent of all attendees surveyed). This is presumably due to the

Table 12

**ATTENDANCE HISTORY OF SELECTED
MAJOR AIR & SPACE ATTRACTIONS
1980-1996**

Year	Total Annual Attendance (thousands)				
	National Air & Space Museum	Kennedy Space Center	United States Air Force Museum	National Museum of Naval Aviation	U.S. Space & Rocket Center
1980	6,952	1,583	n/a	n/a	253
1981	7,574	2,008	↓	↓	262
1982	8,886	1,888	↓	↓	270
1983	10,627	1,870	1,037	↓	359
1984	14,439	1,770	1,017	↓	352
1985	9,085	1,796	987	↓	365
1986	7,362	2,130	1,063	↓	393
1987	7,902	2,480	1,343	↓	418
1988	9,397	2,907	1,494	390	490
1989	8,188	3,007	1,433	416	n/a
1990	7,524	3,126	1,632	473	↓
1991	7,870	2,632	1,565	552	↓
1992	8,645	2,768	1,038	539	↓
1993	8,153	2,451	893	498	↓
1994	8,494	2,102	808	532	500
1995	8,000	2,100	850	540	400
1996	8,668	2,500	975	552	400
1997	n/a	n/a	1,100	n/a	n/a

n/a means not available.

1997 estimate provided by the U.S. Air Force Museum.

Source: Harrison Price Company.

Table 13

**SELECTED CHARACTERISTICS OF VISITORS TO
THE NATIONAL AIR & SPACE MUSEUM
1994**

	Percent of Total Visitors by Season			
	<u>Winter</u>	<u>Summer</u>	<u>Fall</u>	<u>Average</u>
Gender				
Male	64%	56%	59%	58%
Female	36	44	41	42
Age				
Less Than 12 Years	9%	16%	11%	14%
12-17 Years	7	7	4	6
18-24 Years	8	13	9	12
25-34 Years	23	18	21	19
35-44 Years	25	22	17	21
45-54 Years	18	14	17	15
55 or More Years	10	10	21	13
Median Age (years)	36.1	32.0	37.6	33.5
Educational Attainment (visitors age 25 or older)				
Not A High School Graduate	1%	3%	3%	3%
High School Graduate	9	17	16	15
Some College/Associate's Degree	16	17	16	17
Bachelor's Degree/Some Graduate Study	38	36	33	35
Graduate Degree	36	27	32	30
Number In Visitor Party				
1 Person	15%	13%	20%	15%
2 Persons	28	30	42	32
3 Persons	18	16	11	16
4 Persons	14	17	11	15
5 Persons	6	9	5	7
6 or More Persons	19	15	11	15

Table 13
(continued)

	Percent of Total Visitors by Season			
	<u>Winter</u>	<u>Summer</u>	<u>Fall</u>	<u>Average</u>
Median Party Size (persons)	3.4	3.4	2.7	3.2
Visitor Party Configuration				
1 Adult	15%	12%	21%	15%
2 Adults	28	26	39	29
3 or More Adults	15	15	16	15
Adults and Children	32	39	17	32
Organized Groups				
School Group	4	1	1	2
Tour Group	4	5	5	5
Group of Teens	2	2	1	2
Duration of Visit				
Less Than 30 Minutes	18%	20%	7%	16%
30 Minutes-1 Hour	26	25	19	23
1 to 1.5 Hours	20	27	25	25
1.5 to 2 Hours	14	20	16	18
2 to 2.5 Hours	7	5	12	7
2.5 to 3 Hours	6	2	8	4
More Than 3 Hours	9	1	13	7
Median Length of Stay (hours)	1.2	1.1	1.5	1.2

Source: Institutional Studies Office, Smithsonian Institution; and Harrison Price Company.

subject matter since men are more likely to have served in the military and/or tend to have a greater mechanical knowledge and education in the physical sciences -- factors that tend to heighten appreciation for aeronautical history and technology.

As to the other findings, they represent the general patterns in most aviation related programs. On an annual basis, 20 percent of all visitors are under age 18, a little more than half fall into the 18-44 age bracket, and the balance of about 29 percent are 45 years or older. Median age is calculated at roughly 34 years. A substantial 82 percent of survey respondents have at least some post-high school education and nearly two-thirds have completed four or more years of college. More than three-fourths of all visitors arrive in small parties of four persons or less, with median party size at some 3.2 persons. With regard to visitor party composition, 59 percent are comprised solely of adults, 32 percent include children as well as adults and the remainder are organized school or tour excursions or groups of teens. Sixty-four percent of all visits are 1.5 hours or less in duration. Although the Montgomery and Greene County Visitor Bureaus do not survey general regional visitors for demographics, nor does the Air Force Museum, from discussions with these parties as well as the consultants depth experience in evaluating similar site and event undertakings, the demographics represented by attendance to aviation museums, air shows, aeronautical symposia and the like, will be similar to those that the Centennial programs will experience.

Set forth in Table 11 is the total market size (regional residents and overnight tourists) for the sample of aviation related attractions with respective market capture rates. As indicated, overall market penetration (that is, combined penetration of primary resident and tourist components) extends from a low of 1.2 percent at the Intrepid Sea-Air-Space Museum in New York to a substantial 35 percent at the National Air & Space Museum. In regard to market penetration, the U.S. Air Force Museum in Dayton is the second most successful museum of its type with 18.6 percent of the 50-mile resident market and overnight tourism. It is an outstanding attraction devoid of strong competition (it offers free admission). Most aviation related attractions fall into the range of 5 to 10 percent. The weighted average capture rate for the total sample

amounts to 9.2 percent; excluding the anomalous National Air & Space Museum, the most attended museum in the world, the weighted average is 4.5 percent.

As an additional point of reference in determining market capture rates for the Centennial, it is useful to consider the experience of major cultural and entertainment attractions in the Dayton region. As shown in **Table 14**, the overall market capture for the facilities in the region range from a low of 0.8 percent at the National Folk Festival to the high of 10.0 percent at the U.S. Air Force Museum¹. The average of these venues and special attractions, including the U.S. Air Force Museum is 2.9 percent.

Projections for the Centennial Programs

Within the context of comparable experience and previously cited celebration guidelines, **Table 15** contains target market capture and attendance estimates for the proposed year-long celebration including the air show, exposition, symposia, cultural programs but excluding the estimated 1.5 to 1.6 million attendance at the U.S. Air Force Museum during 2003. In developing these projections, the following constraints on attendance were taken into account:

1. The intellectual nature of the subject matter
2. General dependence on a well-educated audience with emphasis on college graduates
3. Lesser appeal to females -- 60 percent of the attendees will be male
4. Lack of public awareness of Dayton as the birthplace of aviation
5. Potential competition from Kitty Hawk programs
6. Minimal inventory of hotel rooms and other visitor amenities
7. Lack of recognition of Dayton as an entertainment/cultural destination

¹ Based on the 0- to 100-mile resident market plus overnight tourism.

Table 14
MARKET CAPTURE RATES OF
DAYTON CULTURAL/ENTERTAINMENT ATTRACTIONS
1996

<u>Attraction</u>	<u>1996 Attendance (thousands)</u>	<u>Overall Market Capture Rate (Percent) 1/</u>
U.S. Air Force Museum	975,000	10.0
U.S. Air and Trade Show	77,500	0.8
Dayton Art Institute*	220,000	2.8
National Folk Festival	75,000	0.8
Carillion Historical Park	112,000	1.2
Nutter Center	550,000	5.7
Memorial Hall	250,000	2.6
Fraze Pavillion	100,000	1.0
Champions Weekend	100,000	1.0

1/ Based on a total 1996 market size of 9.714 million (0- to 100-mile resident plus overnight tourism).

* 1995 figures used (1996 unavailable due to closure).

Table 15

**ATTENDANCE TARGETS FOR THE
CENTENNIAL YEAR-LONG PROGRAM**

	Performance Range		
	Low	Probable	High
Estimated Market Capture Rate Resident Market			
	(Percent)		
Primary (0-50miles)	8.0	12.5	20.0
Secondary (50-100 miles)	2.0	4.0	6.0
Extended Residents (100-300 mile)	0.8	1.0	1.5
Overnight Tourist Market	10.0	15.0	20.0
Estimated Annual Attendance 1/ Resident Market			
	(000)		
Primary (0-50miles)	230	349	558
Secondary (50-100 miles)	92	188	281
Extended Residents (100-300 mile)	<u>334</u>	<u>446</u>	<u>668</u>
Subtotal	656	983	1,507
Overnight Tourist Market	<u>287</u>	<u>431</u>	<u>574</u>
Total	943	1414	2,081
Imputed Gross Market Capture 1/	1.8%	2.7%	3.9%
Imputed Regional Market Capture 2/	9.1%	13.6%	20.1%

1/ Based on the 300-mile containment of 52,044 million in 2002 as shown in Table 3.

2/ Based on resident plus visitor market size of 10.362 million.

Projections exclude the estimated 1.5 million visitation figure for the U.S. Air Force Museum over the Centennial Year 2002.

Source: Harrison Price Company.

As a counterpoint to these constraints on attendance, certain other events and conditions can be established to create a positive influence on attendance:

1. Emotional and intellectual interest in flying
2. The Centennial of Flight may catch the public's imagination
3. The Bicentennial of Ohio campaign in 2003 may highlight the Century of Flight as a hallmark event
4. Aggressive marketing and expansion of the U.S. Air Force Museum
5. Kitty Hawk programs may be scheduled to enhance Dayton's programs
6. Aggressive marketing by the 2003 Organizing Committee and its attendant Task Forces

In this overall context, the market capture rate for the extended market (0-300 miles) is projected between 1.8 and 3.9 percent. The projected regional market capture rate (0-100 miles plus overnight tourism) is between 9.1 and 20.1 percent with the mid-point at 13.6 percent. Assuming that the U.S. Air Force Museum will reach its projected attendance by 2003, its market capture rate at that time will be 14.2 percent, or approximately the same as the mid-point for the Centennial as a whole. The numbers between the U.S. Air Force Museum and the Centennial programs are comparable since they will be reinforcing the same celebration and cross-promoting attendance. Absolute annual attendance resulting from these capture rates amounts to a low of 943,000 to a probable estimate of 1,414,000 to attend Centennial activities. Adding the 1.5 to 1.6 million projected visitors to the Air Force Museum during the Centennial year, the total is approximately 3.0 million visits to Centennial activities and venues in the Dayton region in 2003.

The Centennial Exposition, comprised of a ten-day mid-July 2003 series of events including the Centennial Air Show is analyzed for market capture potential and attendance estimates in **Table 16**. The overall market capture rate for the regional market is set in a range between 1.8 and 4.0 percent, (based on the 300-mile containment). It is consistent with the mid-range of comparable experiences.

Table 16

ATTENDANCE TARGETS FOR THE CENTENNIAL

	Performance Range		
	Low	Probable	High
Estimated Market Capture Rate Resident Market			
	(Percent)		
Primary (0-50miles)	1.60	2.50	4.00
Secondary (50-100 miles)	0.40	0.80	1.20
Extended Residents (100-300 mile)	0.15	0.20	0.30
Overnight Tourist Market	2.00	3.00	4.00
Estimated Annual Attendance 1/ Resident Market			
	(000)		
Primary (0-50miles)	45	70	112
Secondary (50-100 miles)	19	38	56
Extended Residents (100-300 mile)	<u>67</u>	<u>89</u>	<u>134</u>
Subtotal	131	197	302
Overnight Tourist Market	<u>57</u>	<u>86</u>	<u>115</u>
Total	188	283	417
Imputed Gross Market Capture 1/	0.36%	0.55%	0.80%
Imputed Regional Market Capture 2/	1.80%	2.70%	4.00%

1/ Based on the 300-mile containment of 52,044 million in 2002 as shown in Table 3.

2/ Based on resident plus visitor market size of 10.362 million.

Source: Harrison Price Company.

Exposition attendance resulting from these capture rates amounts to a low of 188,000 for the ten-day program to a high of 417,000. The mid-range estimate is for 283,000 visits for the week and two week-end event.

Event Scheduling

An analysis of the likely pattern of attendance provides a basis for planning the timing of the Centennial's separate special events. July has been selected for the major ten-day Exposition because of unpredictable weather patterns in June (particularly for outdoor and flying events) and because of monthly attendance patterns prevailing at existing major Air and Space attractions as shown in **Table 17**. July is the highest visitor traffic period. The peak visitor month at Dayton's U.S. Air Force Museum is July at 12.3 percent of annual attendance. July, August and September account for the largest visitor traffic at the museum in Dayton with 34.4 percent of annual visitation. Lowest attendance months occur in the holiday and winter season with December, January, February and March accounting for only 21.6 percent of annual visitation. The same general pattern holds true for many of the other major Air & Space Museums with the exception of warm weather sites such as the San Diego Aerospace Museum and the Kennedy Space Center where the months of February through April are higher than September through October. HPC proposes that the Organizing Committee focus on events that will draw from the greater 300-mile market during three ten-day periods during the year with the goal of capturing 60 percent of visitor traffic on those days. The other 40 percent (565,000) will be drawn from the 50-mile market to attend more regional activities over the rest of the Centennial year. The three periods that the consultants propose are mid-July, end of September/early October, and early May.

In addition to determining the timing and level of attendance over the Centennial year, attendance models need to be developed for the likely patterns of attendance during the day to provide the basis for estimating the physical capacity requirements of the proposed special event. These physical requirements include parking, restroom

Table 17

**MONTHLY DISTRIBUTION OF ATTENDANCE AT
MAJOR AIR & SPACE ATTRACTIONS
1994**

<u>Month</u>	<u>Percent Distribution of Annual Attendance</u>					
	<u>National Air & Space Museum</u>	<u>Kennedy Space Center</u>	<u>United States Air Force Museum</u>	<u>National Museum of Naval Aviation</u>	<u>Museum of Flight</u>	<u>San Diego Aerospace Museum</u>
January	3.9%	6.4%	3.3%	4.7%	7.6%	7.0%
February	4.0	9.0	4.3	7.0	5.8	9.0
March	7.5	11.7	7.0	8.6	6.7	9.0
April	12.1	8.9	8.2	8.50	6.4	9.0
May	10.8	6.6	9.9	7.8	8.8	8.0
June	10.6	10.1	9.8	11.1	8.7	8.0
July	14.5	13.0	12.3	14.3	11.6	13.0
August	12.9	10.9	11.7	10.6	15.5	12.0
September	6.5	4.2	10.4	6.8	9.1	7.0
October	7.0	5.9	8.6	7.0	8.0	6.0
November	6.0	5.8	7.4	7.5	5.5	5.0
December	4.2	7.5	7.0	6.2	6.3	7.0
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Harrison Price Company.

facilities, food service, security, and for outdoor events, the number of square feet required to manage the crowd comfortably. Normal arrival and departure patterns for an all-day event that would fit the pattern of the Centennial Exposition are shown in **Table 18**. As shown, in a 9 am to 9 pm event, the on-site crowd typically increases quite rapidly during the first several hours of operation and with a 2.5 hour average length of stay, reaching a peak of 41 percent of the day's total around 2 to 3 in the afternoon. That percentage determines space requirements for "design day" (the average heavily attended day).

Preliminary Financial Analysis

Based on the market penetration and attendance guidelines just described, a preliminary financial analysis for the Centennial Exposition is developed in the paragraphs to follow, including estimated operating revenue, operating expenses and net operating income. These estimates are subject to change and/or refinement as planning reaches a more definitive state. All amounts are expressed in constant 1997 dollars.

Operating revenue at the proposed Centennial Exposition will be primarily derived from visitor expenditures for admission tickets, merchandise, food and beverage, and parking. For planning purposes it is assumed that the Centennial Exposition will consist of ten-days of activities anchored by two major week-end events and an Exposition which ties together the two events and continues over the ten days. The Air Show is expected to draw 40 percent of the attendance, the other major event anchor 20 percent, and the Centennial Exposition the remaining 40 percent. From Table 16 HPC has projected a probable overall attendance of 283,000 and a high estimate for the ten days of 417,000. The projected attendance at the Exposition itself is a probable 113,000 and a high of 167,000.

Table 18

**ILLUSTRATIVE ARRIVAL AND DEPARTURE PATTERNS
ON DESIGN DAY**

<u>Time of Day</u>	<u>Percent of Design Day Attendance 1/</u>				
	<u>Hourly Arrivals</u>	<u>Cumulative Arrivals</u>	<u>Hourly Departures</u>	<u>Cumulative Departures</u>	<u>On-Site Crowd 2/</u>
Opening	2%	2%	2%
9 AM-10 AM	4	6	6
10 AM-11 AM	8	14	1%	1%	11
11 AM-Noon	11	25	3	4	21
Noon-1 PM	14	39	7	11	28
1 PM -2 PM	18	57	9	20	37
2 PM-3 PM	15	72	11	31	41
3 PM-4 PM	9	81	14	45	36
4 PM- 5PM	5	86	19	64	22
5 PM-6 PM	3	89	13	77	12
6 PM-7 PM	7	96	9	86	10
7 PM-8 PM	4	100	5	91	9
8 PM-9 PM	...	100	6	97	3
Closing	...	100	3	100	0

1/ Assumes an average visitor length of stay of 2 to 2.5 hours.

2/ Cumulative arrivals less cumulative departures.

Source: Harrison Price Company.

Admission Revenues

The programmatic content presented in Section 2 of this report is geared to delivering an entertainment/cultural value consistent with the mean adult entertainment ticket expenditure in Dayton of \$15.00 on the low model, \$20.00 in the mid-range model, and \$25.00 on the high model as delineated in **Table 19**. Additional admission pricing guidelines can be found in the comparison of adult admission fees for major Air and space attractions as illustrated in **Table 20**. Scaled-down prices would be established for children under the age of 12 and senior citizens. At most cultural (nonprofit) attractions, net per capita admission receipts, or "yield," from admissions commonly ranges from between 40 and 65 percent of the adult ticket price after allowance for attendance mix between adults and children, group discounts, and a certain incidence of complimentary tickets. Using 50 percent for the planning model because of aggressive group and tour marketing packages, effective per capita admissions revenue is projected at \$10.00 mid-range, as shown in **Table 21**. Total gross admissions revenue to the Centennial Exposition, therefore, will amount to \$2.02 million over the ten days in the probable model and \$3.66 million in the high model. Ticket packaging programs which encourage visitors to buy multi-day and multi-venue events are desirable. For example, the Air Show and the Exposition gate can be linked with other mid-week discounted gate activities.

Merchandise and Food Service

At the mid-range performance benchmark, per capita spending on merchandise at the Exposition is projected at \$4.00 and a \$3.00 spending average is estimated for food service. Ample precedent can be cited among entertainment venues for these per capita assumptions. In the probable case, total gross sales for both merchandise and food service will amount to \$791,000 for the ten days. In the high case, gross sales are projected at \$1.42 million.

Table 19

**MAJOR COMMERCIAL ENTERTAINMENT AND
CULTURAL ATTRACTIONS IN THE GREATER DAYTON AREA
1997**

<u>Venue</u>	<u>Event</u>	<u>Median Ticket Price Range (\$)</u>
Nutter Center (Wright State University Indoor Sports Arena)	Concert-Aretha Franklin	33.00
	Sports-Gymnastics	33.00
	Concert-Chicago/Beach Boys	30.63
	Concert-Puff Combs	31.50
	Concert-Tracey Lawrence	19.25
	Sports-Hockey "Bombers"	10.50
	Sports-Basketball "Raider"	8.00
Memorial Hall (Downtown Concert Hall)	Dayton Philharmonic	
	Classic Series	20.00
	Super Pops Series	29.00
Fraze Pavilion (suburban outdoor pavilion)	Concert-Depends on act booked	26.00
	Kenny Loggins at the high end of the ticket prices has the only sell-out at the Frazee	
Victoria Theater (restored historic theater downtown)	Musical/play-depends on season "How to Succeed in Business" currently playing	19.00
Human Race Theater (local professional theater troupe, performs in Metro- politan Arts Center downtown)	Plays-"Angels in America"	21.00

Source: The 2003 Committee.

Table 20

**CHARACTERISTICS OF MAJOR AIR & SPACE ATTRACTIONS
1997**

Attraction	Adult Admission Fee	1996 Attendance (thousands)	Principal Features
National Air & Space Museum (Washington, D.C.)	Free	8,668	Aircraft exhibits, IMAX theater, planetarium
Kennedy Space Center Visitor Center (Cape Canaveral, FL)	\$8.00 Tour \$5.00 IMAX	2,500	Bus tour of Shuttle launch complex, museum, IMAX theaters
United States Air Force Museum (Dayton, OH)	Free Mus \$5.00 IMAX	975	Museum, IMAX theater
Space Center Houston (Houston, TX)	\$11.95	750	Mission simulation facility, rocket park, IMAX theater
National Museum of Naval Aviation (Pensacola, FL)	Free	552	Aircraft displays, scale models, theater
Museum of Flight (Seattle, WA)	\$8.00	534	Museum, scale models, theater
Intrepid Sea-Air-Space Museum (New York, NY)	\$10.00	460	Museum, historic ship, theater
U.S. Space & Rocket Center (Huntsville, AL)	\$14.00 Combo	400	Museum, OMNIMAX theater, bus tour

Table 20

(Continued)

Attraction	Adult Admission Fee	1996 Attendance (thousands)	Principal Features
Kansas Cosmosphere and Space Center (Hutchinson, KS)	\$2.00 Mus \$5.00 OMNI \$6.00 Combo	350	Museum, OMNIMAX theater, planetarium
Pima Air & Space Museum (Tucson, AZ)	\$6.00	227	Aircraft displays, aviation library
Virginia Air & Space Center (Hampton, VA)	\$6.00	225	Aerospace exhibits, IMAX theater
San Diego Aerospace Museum (San Diego, CA)	\$5.00	190	Museum, films, aviation art gallery
The Space Center (Alamogordo, NM)	\$4.50	181	Aerospace exhibits, IMAX theater, planetarium
EAA Air Adventure Museum (Oshkosh, WI)	\$7.00	148	Museum, auditorium, annual fly-in event

Source: Harrison Price Company.

Table 21

**ESTIMATED OPERATING REVENUE FOR
THE CENTENNIAL EXPOSITION
(Constant 1997 Dollars)**

	Performance Range		
	Low	Probable	High
Estimated Per Capita Revenue			
Admissions 1/	7.50	10.00	12.50
Merchandise Sales	3.00	4.00	5.00
Food and Beverage	2.50	3.00	3.50
Parking 2/	<u>0.90</u>	<u>0.90</u>	<u>0.90</u>
Total	13.90	17.90	21.90
 Total Gross Revenue (000) 3/	 562	 1,130	 2,088
Admissions	225	452	835
Merchandise Sales	188	339	585
Food and Beverage	<u>68</u>	<u>102</u>	<u>150</u>
Parking	1,043	2,023	3,657
Total			
 Less: Cost of Goods Sold (000):			
Merchandise (@ 50% of sales)	112	226	418
Food and Beverage (@30% of sales)	<u>57</u>	<u>102</u>	<u>176</u>
Total	169	328	594
 Total Net Revenue (000)	 874	 1,695	 3,063

1/ Based on an average yield of 50 percent on adult admission prices of \$15.00 (low), \$20.00 (probable), and \$25.00 (high).

2/ Based on 90% arrivals by car, 3 persons per vehicle, and a parking fee of \$3.00 per car.

3/ Based on Exposition attendance estimates of 75,000 (low), 113,000 (probable), and 167,000 (high).

Source: Harrison Price Company.

Parking Revenues

Table 19 defines the number of visitor arrivals coming by car to be 90 percent. Further assuming 3 persons per car and a parking fee of \$3.00 per vehicle, average per capita parking receipts come to 90 cents. At the mid-range benchmark, total gross parking revenues are \$102,000.

Total Operating Revenue

Combined revenue from admissions, merchandise, food service, and parking is estimated for the ten-day Centennial Exposition to be \$17.90 per capita under the probable attendance scenario, resulting in total gross revenue of \$2.02 million. The high case projects combined revenue from all sources at \$3.66 million. Net revenues under the probable scenario are \$1.7 million and \$3.1 million under the high case.

Estimated Operating Expenses

A preliminary estimate of operating expenses associated with the Centennial Exposition depend to a large degree upon the rental rate of the physical sites that are utilized by the Exposition; the service level provided the attendees; the extent of volunteer support in place of paid personnel; the level of discount provided by entertainment because of the event's non-profit status; how the Committee will allocate its own overhead to the Exposition; and whether or not the Committee is going to produce the event itself or contract with a producer to stage the Exposition. The operating budgets for the Exposition are drawn from comparable experience, but also incorporate judgments and assumptions as to the management decisions of the Organizing Committee. Considerable fine-tuning will be required to control operating expenses. This pro forma financial analysis should therefore be viewed as a planning objective geared to achieving financial self-sufficiency on an earned-income (operating income) basis.

Under all budget models, an expense ratio objective equal to 65 percent of total gross revenues is assumed, resulting in an expense budget under the mid-range model of \$1.3 million. It should be noted that this analysis has made no allocation for land or venue rent pending decisions on siting.

Residual Surplus Income

Subtracting estimated operating expenses from estimated net revenue, a residual operating surplus of \$380,000 at the probable performance benchmark, is shown in **Table 22**. This operating surplus assumes that no Organizing Committee overhead is applied to the operating expenses of the Exposition, including the marketing expenses of the Organizing Committee devoted to the Centennial Exposition. Operating surplus is estimated at \$196,000 under the low attendance assumption and \$686,000 under the high attendance assumption. The operating surplus of 19 percent should be viewed as a budget planning tool to determine how much can be spent in venue leasing or overhead applications. Actual cash flow from operations during the year may become negative at times (when operating expenditures are made before income is received).

A well-executed Centennial Exposition with a strong live entertainment thrust, in tandem with audience appealing activities can be operated on a break-even basis if attendance development is generated as outlined herein and operating expenses are maintained at a 65 percent budget level.

Table 22

**PRO FORMA FINANCIAL ANALYSIS FOR
THE CENTENNIAL EXPOSITION
(Constant 1997 Dollars)**

	Performance Range (\$ thousands)		
	Low	Probable	High
Estimated Total Income Gross 1/	1,043	2,023	3,657
Estimated Total Income Revenue 1/	874	1,695	3,063
Estimated Total Operating Expenses 2/	<u>678</u>	<u>1,315</u>	<u>2,377</u>
Operating Surplus	196	380	686
Operating Surplus as Percent of Total Gross Revenue (%)	19	19	19

1/ From Table 21.

2/ Assumes 65% operating expenses as gross revenue. No Organizing Committee overhead is applied to the operating expenses of the Exposition.

Source: Harrison Price Company.

Section 5

ECONOMIC IMPACT

The Economic Impact of the Century of Flight results from economic activity in four areas -- capital projects, operating expenses and revenues, sponsorship and support funding, and governmental allocations for county, state and federal supported programs. Because the project is still in its planning stage, a more precise estimate of the Centennial economic impact awaits further refinement in the four areas described above. This section, however, serves as a guideline for understanding the general magnitude of the economic impact of the project on the greater Dayton area.

Economic Assumptions

It is assumed that the Organizing Committee will not directly manage any capital projects under its direct budget, but that the Centennial as a whole through the Committee's Task Forces will undertake approximately \$20 million in capital projects. These include \$5.4 million in support of the Air Show, \$8.0 million for the Dayton Aviation Heritage National Historical Park, and \$6.5 million for projects supporting programs at Carillon Park, Dayton city improvements, and other infrastructure required by the Centennial Task Force programs. In addition to the \$20.0 million in capital support outlined above, there will be additional infrastructure projects funded for the U.S. Air Force Museum and the Dayton Art Institute.

The estimated probable visitor count of 1.4 million (excluding the U.S. Air Force Museum) is used to calculate operating revenue along with a per capita on-site expenditure of \$17.90 (see Table 21), yielding a Centennial gross revenue total for admissions, food and beverage and merchandise of \$25.1 million.

Sponsorships, grants and local support are a function of programmatic appeal, sense of import to the community, and political appeal. The target reflected is \$10.0 million. The \$10.0 million will be funded from three sources. Sponsorship funding will provide an estimated \$3.5 million; local business and philanthropic grant giving will assist with another \$3.5 million and the remaining \$3.0 million will be generated from external licensing and merchandising programs. Combined, the three funding programs (capital support, gross revenues, and sponsorships, grants, and local support) will provide nearly \$55.0 million in direct revenue in Centennial-related programs.

Organizing Committee Funding

Funds available for direct support of personnel and administrative overhead during the life of the Organizing Committee are estimated at \$15.0 million and are derived from the following sources:

1. 15 percent management and licensing fee on funding received by all of the Task Forces and programs contractually a part of the official Century of Flight centennial celebration. The Organizing Committee will directly solicit many of these funds which will be cooperatively utilized throughout the Task Force programs.
2. \$2 million generated by the Centennial Exposition from admissions, food and beverage and merchandise (while maintaining a break-even or minimal operating surplus with no subsidy required from the Organizing Committee).
3. External merchandising and licensing fees are \$3.0 million of which 75 percent will be available to the Organizing Committee and 25 percent to the license owner/rights-holder. The Committee share is \$2.25 million.

4. The remaining \$2.75 million will be generated from a 6-year Century of Flight membership campaign soliciting individuals, corporations and associations that support the Dayton region and aviation.

The Organizing Committee will be required to fund its internal operations for 6.5 years from 1998 to a mid-2004 close-out. An allocated operating budget for the Committee overhead of \$10.25 million is expended as follows:

	<u>\$ Millions</u>
1998	0.75
1999	1.00
2000	1.25
2001	1.75
2002	2.25
2003	2.75
2004	0.50

This allocation does not include separate budgets of \$2.0 million for the Centennial Exposition which is self-funded, nor a \$3.0 million supplemental marketing and advertising budget. Any separate television production or other project would be contracted as a non-Committee subsidized independent budget item. The total preliminary operating budget of the Organizing Committee of \$15.0 million will require more refinement after the Committee has completed its detailed planning. However, this budget is useful at this stage in the project development to estimate an expenditure pattern as well as set objective criteria for the various departmental funding objectives. The economic impact of these planned on-site, off-site and operating developing costs is shown in **Table 23**.

Table 23

THE ECONOMIC IMPACT OF DIRECT, OFF-SITE
AND OPERATING DEVELOPMENT EXPENSES

1. Impact of on-site visitor expenditures

<u>Attendance</u>	<u>Per Capita</u>	<u>Impact Multiplier</u>	=	
1,410,000	\$17.90	2 ¹		\$50.5 million

2. Impact of off-site visitor expenditures

<u>Tourist Attendance</u>	<u>Per Capita</u>	<u>Impact Multiplier</u>	=	
430,500	\$36.50 ¹	2 ²		\$15.7 million

3. Capital Expenditures

<u>Construction Cost</u>	<u>Impact Multiplier</u>	=	
\$10.0 million	1.6 ³		\$16.0 million

4. Operating Revenues

<u>Revenues</u>	<u>Impact Multiplier</u>	
\$15.0 million	2 ²	\$30.0 million

Total Economic Impact \$112.0 million

¹ Per capita off-site incremental expenditures (accommodations, food, etc.).

² Leakage at 50 percent.

³ Leakage at 62 percent.

Source: Harrison Price Company.

Economic Impact

These preliminary estimates reflect the aggregate economic impact of the year-long Centennial on its 50-mile radius primary market. It does not include the additional impact from applicable taxes, nor the results of the incremental attendance increase that the U.S. Air Force Museum will enjoy as a result of cooperative Centennial marketing efforts. From attendance, HPC forecasts \$50.5 million of total impact on the Dayton community (direct and indirect). In addition, off-site visitor expenditure impact is estimated at \$15.7 million, capital expenditure impact at \$16.0 million and operating revenue contributions at \$30.0 million. The total of the year-long Centennial program is \$112.0 million. These numbers are subject to change as the 2003 Committee more clearly refines its programmatic content and has time to determine the depth of its financial support. The multipliers used to determine indirect impact reflect the following very conservative estimates of expenditure leakage outside the 50-mile primary market area:

<u>Multiplier</u>	<u>Leakage¹</u>
2.0	50%
1.6	62%

¹ Recycled expenditures outside of the primary market area.

Section 6

MANAGEMENT REQUIREMENTS

Effective management is a fundamental and critical ingredient in the success of any event related production. Equally important is the clarity with which an organizing committee relates with the various community implementers that comprise the total program. To establish a basic management framework for the Centennial of Flight, this section of the report treats the proposed management structure and its contractual relations with Task Force Implementers and related entities, and Personnel Planning.

Management Structure

Because of the varied historical purposes of the 2003 Committee, from driving the development of the Dayton Aviation Heritage National Historic Park, to organizing Celebration Dayton '96, to assuming now the responsibility for organizing the Century of Flight international celebration, the Committee has evolved a collegial, representative management structure. The organization is comprised of a Stakeholders Council, which erves as a community advisory body for the Board of Trustees, and a group of separate independent Task Forces that are responsible for certain programs associated with the Century of Flight. An Executive Director and small staff service both the Board and the Task Forces in their mission to produce their individual programs that in total define Dayton's celebration of the Century of Flight.

It is the opinion of the consultants that the 2003 Committee needs to reorganize its management structure and relation to the Task Forces to enable Dayton to achieve the ambitious goals that the community has set for itself. Reasons that require a reorganization are as follows:

1. Fiduciary requirements demand that a financially responsible entity sign on all the contracts in which the Centennial engages. In nearly all cases, the 2003 Organizing Committee will be signing on venue, media, sponsorship, personnel, and insurance liability contracts. These contracts will stipulate payment responsibilities in those cases where insufficient funds are available and when a contracted product is not delivered. For example, a corporate sponsor may front-load payments prior to an event, and if the event doesn't take place, or there are circumstances which cause the event to be in violation of minimum performance guarantees, the sponsor contract may require returning substantial sums of money. In all cases, when funds are insufficient, the Organizing Committee will be required to step in the breach and honor such commitments. Therefore, the structure of the current 2003 Committee may need to be revamped for protection from contingent liability issues associated with a major event production.
2. Dayton needs to play the leading role in both the US and internationally to allow it to establish the Centennial Flight message that will be conveyed to the world at large. Kitty Hawk is strongly positioned in the public mind and the transfer of that psychological investment in site to the Wrights as personalities and Dayton as the birthplace of aviation requires an orchestrated and strategic implementation.
3. In order to maximize market penetration and gain international recognition, programmatic elements need to be scheduled as one experience (i.e. the Olympics with many sports in one event), thus allowing grouping of events for maximum visitor or media attraction.
4. Individual program identities need to be subsumed under a universal identity package.

5. To maximize value in negotiations with airlines and other mass merchandising opportunities, merchandising and licensing require a universal identity and centralized control.
6. Corporate sponsorship programs will not be forthcoming unless there is a centralized and controlled use of corporate identity sponsorship.
7. Organizations outside of Dayton will require one coordinating point through which they can conduct negotiations and enter contracts. These include the Ohio Bicentennial Commission; various Ohio state funding sources; the federal government regarding Centennial legislation; The Kitty Hawk Centennial Commission; and other international organizations including the UN.
8. Coordination of visitor and VIP services needs to be centralized.
9. Managing the Volunteer Program in support of special events also requires centralization.

It is recommended that the 2003 Organizing Committee assume responsibility for:

1. Establishing a community consensus regarding the programs to be undertaken, the physical, cultural, and economic legacies, the theme and message, and the coordination of the overall financial planning;
2. Coordinating all promotional and marketing outreach
3. Managing the development and implementation of the Identity Program
4. Coordinating the submittal of the State Funding request

5. Coordinating the programs with the National Park Service
6. Managing the federal commemorative coin program
7. Coordinating corporate sponsorship programs and contractual revenue splits
8. Centralized licensing for all identity merchandise programs
9. Managing all community fund-raising and grant solicitation
10. Producing a Century of Flight Exposition
11. Coordinating all event scheduling
12. Centralizing management of an insurance umbrella and legal services
13. Coordinating of visitor services
14. Managing the volunteer staffing program
15. Managing all relations with external organizations such as the Kitty Hawk Committee
16. Managing the Celebration wrap-up and final report

Senior Management Responsibilities

To establish a management framework for successfully organizing Century of Flight as a national and international event, it is proposed that the Committee adopt an Organizing Committee approach utilized in special event environments such as the Olympics, World Sporting Championships, Cultural Festivals, and other multi-venue

long-duration events. A conceptual summary of key management areas and positions follows:

1. **Legal.** The network tying together and clearly articulating specific responsibilities among all the interested parties in the Century of Flight (corporate sponsors, task force implementers, media, site specific venues, merchandising and licensing companies, fund-raising, and the like), are built around sanctioned rights. One of the central functions of the Committee is the negotiation and management of contracts. Underpinning all of the contracts and special events is the issue of fiduciary responsibility (who pays the bills if there are insufficient funds?). Ultimately a fiduciary responsible entity must be party to every payment commitment. HPC recommends that an in-house attorney be hired in a senior management position to manage the contract drafting that is carried out by local and national firms.
2. **Finance.** Because of the amounts of funding and revenues required to implement the program, several financial functions are required. Budgeting of both Committee functions as well as an overview of Task Force functions is critical. With tens of millions of dollars of grant funds, state and federal monies, as well as corporate sponsorship, media contracts, gate receipts, merchandise licenses, and the like, full audit functions will be required. In addition to financial planning, budgeting, audit and tax functions, as well as maintaining the daily *AP*, *AR* and payroll functions, the Finance Department should be capable of managing investment of parked capital (treasury functions) along with a full insurance management program. Although certain of these tasks can be out-sourced, the Committee needs internal senior finance management and support staff.
3. **Programs and Events.** This division is responsible for coordinating four main areas - all the existing events that are being undertaken by the community-based Task Forces; Programs that enhance the establishment and

credibility of the National Historic Park sites; international programs under the auspices of the Century of Flight; and the multi-venue, multi-event Centennial Exposition that will take place in July 2003. Key management staff need to be part of the in-house Committee team, however, the production functions for each of these areas should be farmed-out to local promoters and event managers. This area presents a unique challenge in that the programmatic content ranges from the highly technical to educational to the richly cultural, and all need to be given due homage if the Century of Flight is to be a true success.

4. **Governmental/Organizational Relations.** The responsibility for developing the political momentum, international recognition and grant revenues that are needed to lift a regional celebration to an international event will be carried by this division. Although many of these functions can be contracted to PR firms, senior management will need to oversee that the Committees policies are carried out. Public relations will be critically important in positioning the Century of Flight as the "official" aviation Centennial with appropriate non-governmental agencies (in the UN and elsewhere) and aviation related organizations that will "sanction" the Century of Flight program. Additionally within the US, approaches are needed to potential "sanctioning" agencies such as a federal commemorative coin program and the various aviation related NGO's that will agree to support the event. This "officialdom" will then allow for corporate sponsorship, in-flight promotions and other related support to be granted.

5. **Identity.** A small but key element in creating a world-class program is the development of an identity package that provides instant recognition for a venue, activity, sponsor, or campaign associated with the Century of Flight. A clearly defined and recognizable identity is crucial for obtaining sponsor support. A successful identity package defines the meaning of the event and partially validates its "official" nature. Covering not only printed materials, Century of Flight should have a design context which provides venues with the

"look"; media imagery for video and visual advertising; a mascot to support licensing revenues; and a consistency throughout all related programs and materials. A senior manager should be put in charge of managing out-sourced graphics, architectural/design, and media team that develops the Centennial's Identity standards

6. **Marketing and Press.** Four levels of marketing campaigns as well as two other outreach programs are required to be managed by this division. In marketing, the first is the local support campaign focusing on metropolitan Dayton. This effort includes promotions among associations, membership groups, local press and media. A second level is coordination with the Ohio Bicentennial Commission to co-promote visibility and visitation to the region during 2003. Thirdly is the 300-mile regional program, which is the densest population corridor in America. This market level involves travel agents, packaged tours, regional promotions and tie-ins, etc. The fourth tier relates to positioning the Century of Flight nationally and internationally. This includes programs such as in-flight video and magazine promotions on airlines. All four levels require support of Task Force programs as well as independently generated Centennial advertising and promotions. A fifth area of responsibility would be ticketing (especially during the 10-day exposition where 300,000 tickets may be sold to multiple gated venues). And the final division responsibility should be Press and Media. The ultimate outcome of all the focused efforts for conducting the Centennial will be the message and image that the national and international press and media convey to technical and public audiences. It is suggested that a senior manager be hired as the staff manager of marketing and that the actual campaigns and promotions be executed by retained regional and national firms.
7. **Support Services.** Hosting the world requires several critical support services. These requirements will be of special import during the 10-day exposition period in mid-July 2003 when Dayton will physically host the largest

Centennial celebration of the year. The Support Services Division will coordinate visitor services; program transportation (particularly between venues); security (a large international event on flight is a potential terrorist target); as well as infrastructure amenities. A senior manager working with contract firms, local authorities and the existing private hospitality industry should supervise staffing this.

8. **Technology.** In addition to the Centennial's image, the experience and style of the event itself is part of the message that Dayton is presenting to the national and international community. This is particularly true in providing services for the press and media that will be presenting the Dayton message to the world. Because a significant aspect of the Wrights' legacy and of the strength of the Dayton community is technology and information-based, it is suggested that the Century of Flight mirror these legacies by creating a Technology Division, the mission of which is to utilize state-of-the-art technology. This division will be responsible for communication and information outreach to the world during 2003; providing the press and media with the most advanced support services; providing local and national school systems with advanced data and communication gateways to enhance participation in the Centennial; tying together the four National Park Sites and other Centennial venues with communication and data repository tools for enhancing the visitor experience by giving the impression that any one gateway event is part of the overall celebration. A senior technology division manager could work with the many hi-tech firms in the region to utilize the Centennial to showcase technologies, products and services.
9. **Volunteer Programs/HR.** Volunteer programs serve two very important functions in a large community undertaking. First, opportunities for participation in a once-in-a-lifetime project are expanded. Secondly, they provide a means for dramatically reducing costs while at the same time providing a high level of service at a special event. Establishing a Volunteer Program Division at the

senior management level is recommended. This division can also be responsible for all paid human resources but its main mission is to minimize paid positions for Centennial programs.

Staffing Schedule

The 2003 Committee is currently on target in its developmental timetable. With five years to develop and stage the Centennial, the Committee is addressing, through the structure of this report and its own deliberations, the key issues at this phase of the project:

1. Defining the scope of the Centennial programs
2. Determining the physical legacy
3. Ascertaining achievable economic benefits
4. Defining the "Dayton" message
5. Determining the financial requirements
6. Establishing an appropriate management system
7. Defining an outreach campaign
8. Developing a licensing and merchandising policy and game plan
9. Determining the role of the National Park in the Celebration
10. Creating a special event exposition to highlight the celebration
11. Determining the visitor count
12. Scheduling the main mileposts
13. Determining a program Identity package

Although it is critical to define the project in the context of the above issues, the implementation of the above tasks should be carried out in three stages of personnel planning:

- A. **Planning Stage.** During the Planning Stage which will run from now until three years before the inauguration of the Centennial, the

Committee needs to reorganize itself as an Organizing Committee to align itself for protection against contingent liabilities as well as to create a more clearly defined management structure. The work of this stage includes fully defining the programmatic content, the identity and message, preliminary budgets, revenue sources, finalizing international recognition to cement the "official" nature of the Centennial, developing the marketing campaign, and understanding the requirements for support services. The senior management positions required during this planning phase are:

- Executive Director
- General Counsel
- Chief Financial Officer
- Program Manager
- Public Relations Manager
- Marketing and Press Manager
- Support/Technology/other programs Manager

B. **Implementation Stage.** From three years before opening, the Committee should enter the Implementation Stage that would require finalizing programs and events, initiating corporate sponsorship, completing venue contracts, installing an insurance program, and establishing state and local support and co-promotions. Contracts will be negotiated for program producers, merchandise licenses, technology support, and international airline support. This stage will require the addition of only a few support personnel to the complement of core senior management. Long lead-time programs such as Technology should be undertaken at this stage.

C. **Production Stage.** From eighteen months before grand opening, the staff should be expanded to include all direct production management positions; supervision for implementing finance administration; Task

Forces; National Historic Park program; Centennial Exposition; international programs; management of the identity program; various marketing and press programs; support services personnel; technology supervision; and Volunteer Program.

Contractual Relations

As discussed above, the basis for defining fiduciary responsibilities, specific functional tasks, development schedules, identity and name recognition, decision and management lines, budget responsibilities, corporate sponsorship, logo and identity utilization, revenue sharing, and the like will be negotiated and memorialized through contractual agreements. It is highly recommended that once the 2003 Committee has decided on the organizational structure which will manage its fiduciary role in organizing the Centennial, that the organization immediately define its key relationships by negotiating essential contractual agreements. Key relationships would include:

1. Federal Commission managing the Dayton Aviation Heritage National Park
2. Wright-Dunbar State Commission
3. Ohio State Bicentennial Commission
4. National Aerospace Conference
5. U.S. Air and Trade Show
6. Dayton Art Institute
7. U.S. Air Force Museum
8. Aviation Trail Inc.
9. Carillon Park
10. City of Dayton
11. Greene and Montgomery Counties
12. Any Task Force Program under the auspices of the Centennial Identity

13. National and International Aviation NGO's
14. Identity copyright registrations
15. Name and Web site registration
16. Federal commemorative coin program

The primary purpose of these initial contracts will be to articulate:

1. Complete and unequivocal sanctioning of the 2003 Committee as the rights holder for full exploitation of the name, image, objects, places, and special events of the Wright Brothers for the Centennial of Flight
2. Clear delineation of rights and responsibilities regarding utilization of the logo and identity package of the Centennial
3. Full description of the fiduciary rights and responsibilities of each party including conditions of financial bailout, splitting of corporate sponsorship revenues, merchandising sales and the like.
4. Agreement on the marketing and promotional roles and responsibilities, and fiduciary relationships between the 2003 Organizing Committee and the Task Forces that are implementing Centennial programs
5. Agreement on the utilization of and liabilities associated with the Organizing Committee's identity, support and participation in events at various venues throughout the region

Once the basic operating policies between the Organizing Committee and the various entities that provide its sanctioned credibility have been contractually memorialized, the Committee can with confidence move to develop its Centennial program.

Section 7

MARKETING AND LICENSING PROGRAM

This section of the report is devoted to a review of the marketing and licensing programs necessary to achieve visitation estimates and revenue projections.

Marketing Objectives

It is recommended that the 2003 Organizing Committee adopt six specific marketing goals:

1. Develop outreach programs that will contribute to a Centennial target attendance of 3.0 million (including year-long attendance of 1.5 million at the U.S. Air Force Museum) and a Centennial Exposition attendance of 283 thousand for the ten day celebration.
2. Develop support programs to increase per capita revenue programs, licensing and merchandising income to ensure that the Exposition and the Centennial are financially self-supporting
3. Promote national and internationally the message of the "Dayton area as the birthplace of aviation and a world leader in aerospace research and development." (The 2003 Committee 1995-96 Annual Report)
4. Target specific national and international commercial interests to attend the Centennial as part of a community campaign to promote job growth
5. Develop a campaign that creates national awareness and heightened visitation to the Dayton Aviation Heritage National Historical Park

6. Strengthen the region's identity, pride and common purpose

Marketing Programs to Achieve the Objectives

Four programs are recommended as a basic guideline for the Centennial's promotional and marketing outreach campaign. The Organizing Committee should utilize its resources primarily to set policies and objectives and hire a senior manager to coordinate implementation through local and national firms. The four programs are:

1. Resident Market Support

HPC recommends targeting a 12.5% penetration rate of the primary Dayton resident market (0-50 miles) and a 4 percent penetration of the secondary market (50-100 miles). In order to obtain this goal, a region-wide campaign utilizing press, advertising, media, school programs, membership associations, bus tours, and the like will be implemented.

2. Visitor Market

From the greater region (the extended market of 100-300 miles is the primary generator of non-resident visitation) a one percent market penetration is projected. In addition to the above local support measures, the Committee should consider a cooperatively financed campaign with the State of Ohio's Bicentennial Promotion. The Century of Flight can be the centerpiece for southeast Ohio's Bicentennial program. Moreover, a program aimed at regional tour bus operators is highly recommended. The centerpiece for the regional campaign can focus on promotional links to Columbus, Cincinnati and Indianapolis, the region's main population centers and well within the Centennial market draw. This campaign could include programs that originate in all three cities, as well as tour and tie-ins for school visit programs, associations, week-end tourism, and the like.

3. National and International Outreach

Two of the goals of the Centennial are to introduce and reinforce the message that Dayton is the birthplace of aviation and continues as a world leader in aviation innovation. A successful national and international marketing campaign is essential if these goals are to be met. A cornerstone of this effort is to implement an in-flight video, magazine and merchandise program with national and international airlines during 2003. There are firms that specialize directly in such programs and such support should be retained by the Committee. Other programs that will enhance outreach are stories and advertising in international aviation media; a national aviation curricula; national and international aviation symposia hosted in Dayton; programs at the U.S. Air Force Museum that recognize and solicit international involvement (i.e. the Hall of Fame); a federal commemorative coin program; and the like.

4. Commercial Programs

Another goal of the Organizing Committee is to enhance the commercial interests of Dayton by promoting growth in aviation and high tech related businesses in the area. The marketing division can reinforce this message directly through target marketing. One method is targeted invitations to international industry gatherings promoted around three main Centennial events during the year. The technical exhibition surrounding the air show is an appropriate time to coordinate one of these efforts. The campaign can center on aviation, aviation, communications and electronics. An additional target area is military programs. The Centennial provides an opportunity for the City of Dayton and the Dayton business community to reach out to these sectors.

Licensing and Merchandising Objectives

Licensing and merchandising will provide between 30-40% of the revenues from both the year-long Centennial activities as well as the ten-day Centennial Exposition.

Because this represents a significant revenue source for the Committee as well as another means of marketing the image and message of Dayton, it is recommended that a senior person be assigned this responsibility during the planning stage of the Centennial. Three categories of licensing and merchandising opportunities are identified as follows:

1. Wright Commemorative Merchandise
2. Federally-sponsored Wright Commemorative Coin and Stamps
3. Souvenirs

The licensing role of the Committee is recommended as follows:

1. To minimize staffing during the initial planning stage, a senior manager should be placed in charge of the Identity Program and assume responsibility for licensing and merchandising.
2. The Wright Brothers' accomplishments in designing and building toys and models, as well as their extant published artifacts provide ample opportunity for creating "authentic reproductions" on which to base a high-end and general public marketing strategy. These articles could be placed in in-flight merchandise catalogs, U.S. based toy catalogs, and possibly become a line for a toy maker during the Centennial year. A licensing and merchandising company can be contracted to manage this effort. The extent of revenues generated will of course be dependent on the number of reproduction programs, depth of product line, pricing points, the number of marketing channels, and license royalty arrangements. Because the 2003 Committee does not currently own the reproduction rights for the articles in question, it is recommended that the Committee or its successor Organizing Committee immediately negotiate exclusive rights for exploitation of selected inventories and that a shared royalty license be granted between collection owners and the Committee.

3. A potentially large revenue royalty program available to the Committee is income from a federally issued Centennial/Wright Commemorative coin. Because of the political nature of the federal process and the issues associated with the Kitty Hawk Centennial Committee, the 2003 Committee needs to position its interests in this area carefully. The following strategy is suggested. Immediately gain the endorsement of Ohio Senators and Representatives for making Ohio a party to the current North Carolina coin initiative. Secondly, negotiate certain specific rights that maintain the integrity of the 2003 Committee goals, i.e., have one-side of the coin represent a likeness of the Wrights with appropriate innovator language and the other side with a split image and message. Half the coin could show Kitty Hawk commemorating the first flight and the other half could show the Bike Shop and identify Dayton as the birthplace of aviation. The coin message is a critical piece of positioning for Dayton in its effort to establish its right to sponsor the international Centennial of Flight. This will impact sponsorship, merchandising, and other licensing revenues. Commemorative coins are highly collectible items and can generate millions in revenues if well received by the collecting community.
4. Stamps are another commemorative program that State of Ohio representatives should pursue on behalf of the Organizing Committee. A series of Century of Flight stamps depicting the role of Dayton in the development of flight will do much to reinforce an appropriate historical interpretation.
5. Souvenir merchandise is sold by on-site vendors at the various Centennial programs throughout the year, as well as through regional souvenir and tourist stops. Several different types of licensing and merchandising contracts need to be negotiated for souvenir marketing.

The first task to be undertaken by the Committee in this area is securing an inclusive identity mark that can legally be trademarked and copyrighted. The

souvenir business is one of immediate knock-off. The Committee needs to legally protect as much of Centennial imagery as it can and then aggressively enforce the protection of that imagery (which is the responsibility of the Committees in-house legal staff).

Once a set of marks, slogans, likeness and identity package has been secured, they will become licensable marks which can be placed on merchandise for vendors operating in and around Centennial-related events. Master merchandising license contracts need to be negotiated with the various Task Force programs and then sub-licensed to their on-site vendors. The Committee must make several decisions at this stage whether to produce its own merchandise and receive higher revenues or to serve only as a licensing agency. The Committee should manage the licensing process and approve designs, applications on apparel, printed material, porcelain, toys and other items that it sanctions.

Since the Committee will be operating certain events itself including the Centennial Exposition, it may want to hire a promoter who stages the event on behalf of the Committee which could then contract the entire official merchandising package to him. Additionally, the Committee may have a national merchandise program that markets through aviation associations, clubs, flight magazines and the like. Assuming that the Committee undertakes the program envisioned above, 2003 can generate from \$1 million to \$5 million in revenues. Revenues from merchandise and licensing programs are discussed in Section 5.

Section 8

DEVELOPMENTAL TIMELINE

This section deals with a timeline guideline with which the 2003 Committee can both plan its staffing growth and establish an appropriate prioritization of tasks for successful staging of the Century of Flight celebration. The Committee has undertaken this planning process five years prior to the inaugurating event of the Centennial year. That length of time for planning and implementation is required to secure necessary license rights and to gain position relative to other potential producers of a Centennial event. Too much time to plan and staff has its own attendant disadvantages that can be detrimental to the financial success of the Organizing Committee. The following is the suggested developmental timeline which takes into consideration the uncertainties and problems associated with too much or too little advance planning.

Developmental Stages

The developmental phases of the Centennial should be divided into three stages:

Planning	to begin at the present and continue through December, 1999.
Implementation	begins January, 2000 and proceeds until May, 2001.
Production	starts in June, 2001 and proceeds through the Centennial year and ends with the close-out by approximately May, 2004.

Planning (present to 1999)

During the next two years, the 2003 Committee should attack the following objectives:

1. Define the exact scope, purpose, and message of the program
2. Reorganize the legal structure of the 2003 Committee to adopt an organizational structure fully compatible with assuming fiduciary responsibilities, executing licensing rights, and managing the overall program
3. Staff a Planning Stage management team
4. Establish contractual relations and license agreements with all parties relating to securing the Committee's full rights to produce the Centennial
5. Determine the role and program of the National Historical Park sites
6. Determine the physical residuals desired by the Dayton community from the Centennial
7. Define the message the Committee wants the national and international community to receive about Dayton, Ohio
8. Create and implement the Centennial Identity program
9. Develop a merchandising program plan
10. Ascertain the general financial feasibility of the Centennial as a whole and the Centennial Exposition specifically
11. Determine general operating budgets for the Centennial management
12. Define the programmatic content and event coordination responsibilities with the Task Forces
13. Submit long-lead-time funding proposals such as the federal commemorative coin and stamp programs, local and state funding and National Park service support funding

Implementation (January 2000 to May 2001)

From January, 2000 the Committee will enter the Implementation Stage of the project which focuses on meeting the following objectives:

1. Initiate corporate sponsorship program
2. Design the marketing outreach program

3. Initiate technology support program
4. Initiate U.S. and international commercial airline support
5. Complete merchandise and souvenir licenses
6. Complete contracts with program producers
7. Complete insurance contracts
8. Launch any physical construction projects
9. Finalize venue contracts
10. Prepare operating financial plans with completed capital budgets, operating budgets and cash flow estimates, funding sources and revenue sharing programs
11. Hire additional senior management personnel and outsourcing contractors

Production (June 2001 to March 2004)

The final two stages of the Centennial are the actual production of the Centennial (the operational phase) and the close-out after the successful completion of the event. The production of the program focuses primarily on:

1. Implementation of the regional, national, and international marketing and press program
2. Operational support of marketing programs
3. Operational support of task force programs and Centennial Exposition
4. Maintenance and protection of licenses and rights
5. Operational support of National Park service programs
6. Implementation of visitor programs
7. Completion of physical construction programs
8. Initiation of volunteer programs
9. Staffing of support personnel to undertake the aforementioned programs
10. Accounting, Auditing, and close-out

Staffing Plan Timeline

The hiring of senior management and support staff should be divided into three stages corresponding to the developmental stages delineated above. Senior staffing required during each stage to complete the tasks described in this Developmental Timeline are outlined as follows:

Planning (present to 1999)

- Executive Director
 - Tasks overseen by Executive Director
 - Programs and task forces
 - Identity Program - outsourced
 - Marketing and press - outsourced
- General Counsel
- Chief Financial Officer
- Governmental/Organizational Relations Manager
- Senior Writer -- proposals and brochures
- Office support staff

Total staff: 9

Implementation (January 2000 to May 2001)

1. Executive Director
2. General Counsel
3. Chief Financial Officer
4. Centennial Exposition and Task Force Manager
5. Governmental/Organizational Relations Manager
6. Senior Writer

7. Marketing and Press Manager
8. Support Services Manager
9. Technology Manager
10. Office Support Staff

Total staff: 15

Production (June 2001 to March 2004)

1. Executive Director
2. General Counsel
3. Chief Financial Officer
4. Centennial Exposition and Task Force Manager
5. Governmental/Organizational Relations Manager
6. Senior Writer
7. Marketing and Press Manager
8. Support Services Manager
9. Technology Manager
10. Volunteer Program Manager
11. Operational Support Staff

Total staff: approximately 75

The aforementioned Developmental Timeline is proposed as a means by which the 2003 Committee can plan a general schedule to prioritize tasks and time staffing levels. Further refinement in staffing plans will be necessary once the Committee has fully detailed which tasks will be outsourced.

Section 9

RECOMMENDATIONS AND CONCLUSIONS

The principal findings and conclusions of the preliminary concept and economic plan for the 2003 celebration of the Centennial of Flight are briefly highlighted in this section of the report. Other than specifying certain key assumptions, no attempt is made here to discuss findings in detail or to present supporting documentation, which is fully set forth in the main body of the report.

1. The 2003 Committee should undertake an immediate review of its ability to meet any contingent fiduciary responsibilities associated with serving as the host agency and organizer of the Centennial. It is recommended that the 2003 Committee reorganize its structure to become an Organizing Committee with clearly articulated limits on fiduciary requirements.
2. In order for the Centennial to achieve regional, national and international recognition and success, one coordinating point for all Centennial activities is required. It is recommended that the 2003 Committee serve as that focal planning and implementation organization.
3. One of the initial tasks of the Committee is to establish a clear community consensus regarding the programs to be undertaken, responsibilities for each, as well as the physical and cultural legacies desired, the message Dayton wants the world to hear, and the coordination of financial responsibility.
4. The Committee assumes responsibility for all promotional and marketing outreach; the development and implementation of the Identity program; the submittal of state funding requests; coordination of the programs with the federal commemorative coin and stamp program; corporate sponsorship

programs; centralized licensing for all identity merchandise programs; producing a Century of Flight Exposition; coordination of all related event scheduling; centralized insurance and legal services; coordination of visitor support services; managing the volunteer program; as well as relations with all external organizations.

5. It is recommended that the Committee assume responsibility for management of the existing programs that are being undertaken by community-based Task Forces; programs that will enhance the credibility of the National Historic Park sites; international programs under the auspices of the Century of Flight; and the multi-event Centennial Exposition that will take place in July 2003.
6. It is recommended that the Centennial focus on events that will draw from the greater 300-mile market during three ten-day periods over the year with the goal of capturing 60 percent of visitor traffic in those periods. The pinnacle event will be staged in July 2003 over a ten-day two weekend period. This multi-venue, multi-day event will be anchored by the Air Show on one weekend and on the other with a strong regional event, and the overall program will be made a cohesive whole with a Centennial Exposition operating over the entire period. The other two focal periods are suggested for the end of September or early October and early May.
7. The Committee is highly encouraged to immediately enter into contractual agreements with all the key entities with which the Committee has relationships to define fiduciary responsibilities, specific functional tasks, development schedules, utilization of the identity package, clarifying decision and management lines, delineating corporate sponsorship revenue sharing, and the like.
8. A significant aspect of developing the political momentum, international recognition and sponsorship revenues that are needed to sanction the Century

of Flight program, is managing and completing agreements with appropriate non-governmental agencies (in the UN and elsewhere) to position the 2003 Organizing Committee and the Dayton Century of Flight program as the world's official program commemorating this historic event.

9. The regional resident, extended (100- to 300-mile), and tourist markets for Dayton are substantial. Some 2.7 million people currently reside within the 50-mile Dayton primary resident market. The secondary resident market from 50-100 miles has 4.5 million. Together, the total is 7.2 million within a two-hour driving distance. The extended 0- to 300-mile containment area, that dominates the potential market source for Centennial visitations, presently contains 50.6 million, the largest 300-mile containment in the nation.
10. Market factors are largely favorable for undertaking a large event and suggest that, given adherence to the principles set forth in this report, the Centennial is capable of attaining very respectable attendance levels. The celebration of flight has two indicators of high probable attendance. The first is the keen interest that the American public has in aviation and space sciences as demonstrated in the impressive attendance numbers in American Air and Space Museums. The Dayton-based U.S. Air Force Museum ranks third nationally with approximately 1.1 million visitors expected this year representing a market capture rate of 10.0 percent. It is projecting a major gain in market capture by 2003 with new programs and energy.
11. HPC has estimated the overall market capture rate for the extended market (0-300 miles) between 1.8 to 3.9 percent. The destination market rate (0- to 100-mile residents plus overnight tourism) is projected between 9.1 to 20.1 percent with a probable outcome of 13.6 percent. Absolute annual attendance resulting from these capture rates amounts to a low of 943,000 to a probable estimate of 1,414,000 to attend Centennial activities. By adding the 1.5 to 1.6 million projected visitors to the Air Force Museum during the Centennial year, HPC

projects approximately 3.0 million visits to Centennial activities and venues in the Dayton region in 2003.

12. The Centennial Exposition, comprised of a ten-day mid-July 2003 series of events including the Centennial Air Show projects a regional market capture of 1.8 to 4.0 percent, consistent with mid-range comparable experiences. Absolute attendance is estimated from a low of 188,000 to a ten-day high of 417,000. The mid-range, or probable, estimate is for 283,000 visits for the week and two week-end event.
13. The programmatic content planned for the Centennial is consistent with adult ticket pricing of \$15.00 on the low model, \$20.00 in the mid-range, and \$25.00 on the high-end. Scaled-down prices can be established for children under the age of 12 and senior citizens. Net per capita admission yield of 50 percent (relating to aggressive group and tour marketing packages), results in an effective per capita admissions revenue of \$10.00. It is recommended Centennial Exposition create a series of ticket packaging programs that will encourage visitors to buy multi-day and multi-venue events.
14. For the ten-day Centennial Exposition, combined revenues from admissions, merchandise, food service, and parking are estimated at \$17.70 per capita under the probable pricing model, resulting in a gross revenue of \$2.02 million. The high case projects combined revenue from all sources at \$3.66 million. Net revenues under the probable scenario are \$1.7 million and \$3.1 million under the high case. Subtracting estimated operating expenses (budget at 65 percent of revenues) from net revenues yields a residual operating surplus of \$380,000 at the probable model. This operating surplus assumes that Organizing Committee overhead is not applied to the operating expenses of the Exposition, including the marketing expenses of the Organizing Committee devoted to the Centennial Exposition.

15. For purposes of calculating total revenues for all related Centennial activities over the year, the probable visitor count of 1.4 million (excluding the U.S. Air Force Museum) is utilized with a per capita on-site expenditure of \$17.90 yielding a Centennial gross revenue for admissions, food and beverage, parking and merchandise of \$25.1 million.
16. It is assumed that the Organizing Committee will not directly manage any capital projects under its direct budget, but that the Centennial as a whole through the Committees Task Forces will undertake approximately \$20.0 million in capital improvement projects. These include \$5.4 million in support of the Air Show, \$8.0 million for the Dayton Aviation Heritage National Historical Park, and \$6.5 million for projects supporting programs at Carillon Park, Dayton City improvements, and other infrastructure required by Task Force programs.
17. \$10 million is targeted to come from sponsorships, grants and local support. Sponsorship funding should provide an estimated \$3.5 million; local business and philanthropic grant giving will assist with another \$3.5 million; and the remaining \$3.0 million will be generated from external licensing and merchandising programs.
18. The overall funding for Centennial related programs from all sources are estimated at \$55 million. Funds required to support personnel, administrative overhead and task implementation during the life of the Organizing Committee is estimated at \$15 million. The Committee operating funds are proposed to be derived from -- a 15 percent management and licensing fee on funding received by all of the Task Forces and programs contractually a part of the official Century of Flight celebration; an estimate \$2.0 million from the Centennial Exposition (which is a non-subsidized program); external merchandising and licensing fees of \$2.25 million to the Committee; and the remaining \$2.75 million to be generated from a 6 year Century of Flight membership campaign soliciting individuals, corporations and associations that support the Dayton region and aviation.

19. Total economic impact of the year-long Centennial program on the Dayton region is projected at \$112.0 million, \$50.5 million from attendance, \$15.7 million from off-site visitor expenditures, capital expenditures of \$16.0 million, and operating revenue contributions of \$30.0 million. These numbers are estimates based on current programs and are subject to refinement as the 2003 Committee more clearly defines its programmatic content and has time to determine the depth of its financial support.
20. It is recommended that the Committee divide the developmental phases of the Centennial into three stages. Beginning with the Planning Stage from the present and continuing through December 1999; the Implementation Stage starting in January 2000 and proceeding until May 2001; and the Production or Operational Stage starting in June 2001 and proceeding through the Centennial year and ending with the close-out by approximately May 2004. During the Planning Stage HPC recommends a staffing level of nine employees; during Implementation, a staff of 15; and during the Production Stage building to a level of 75.
21. A preponderance of positive factors suggest that the 2003 Committee can conduct a successful national and international Centennial celebrating Dayton as the birthplace of aviation. These factors include a well organized community leadership that is focusing its energies through the 2003 Committee; a high order claim to be the birthplace of aviation; a national emotional and intellectual interest in aviation; the support of the State of Ohio behind the Dayton effort to produce the 2003 Bicentennial celebration; the size of the regional market; aggressive marketing and expansion of the highly successful U.S. Air Force Museum located near Dayton; the planned aggressive marketing campaign of the Organizing Committee; and the likelihood that the Centennial of flight will capture the public imagination.